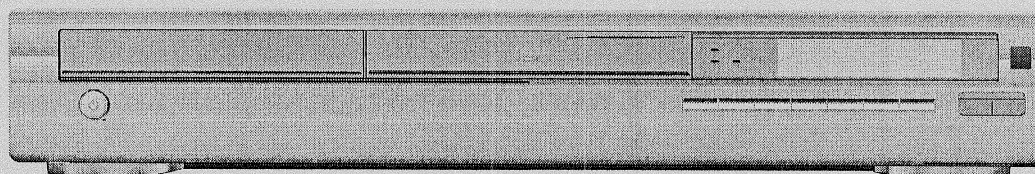


# Service Manual

## DVD HOME THEATRE SYSTEM




DV-R3300SS

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### PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety characteristics. These safety characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by  in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

## SPECIFICATIONS

<b>Unit</b>	
Power supply	AC 230V ~ 50Hz
Power consumption	25 W
Signal system	Standard PAL
Laser	Semiconductor laser, wavelength 650/780nm
Signal-to-noise	More than 95dB
Audio dynamic range	More than 93dB
Harmonic distortion	Less than 1%
Operating temperature	41°F to 95°F (+5°C to 35°C)
Operating humidity	5% to 85% ( no condensation)
<b>Video Output / Input</b>	
Output level	1 Vp-p (75 Ω)
Input level	750mV input (5Ω 10% THD output)
Jack	RCA/Pin jack
<b>Audio Output / Input</b>	
Output level	1.80 ± 0.2 Vrms (1 kHz, 0dB)
Input level	750mV input (5Ω 10% THD output)
Jack	RCA/Pin jack
<b>Speakers Section</b>	
Speakers (Front/Center/Rear)	
Speaker system	Bass reflex
Speaker unit	70 mm dia. cone type
Rated impedance	8 ohms
<b>Subwoofer Section</b>	
Power consumption	230 W
Speaker system	Bass reflex
Speaker unit	165 mm dia. cone type
Rated impedance	4 ohms

Specifications and external appearance are subject to change without notice.

## PERFORMANCE SPECIFICATIONS

### GENERAL TEST CONDITION

Power Supply	: AC 230V 50Hz
Output Load	: 8 ohm non-reactive x5 Subwoofer 4ohm x1
Reference Output	: 500 mW
Input Signal Source	: External AM Loop Antenna
	: 75 ohm Dummy Antenna for FM
Modulation	: 30% 400Hz for AM 80% for Power
	: 75kHz Deviation 1000Hz for FM
	: 7.5kHz Pilot Tone
	: 67.5kHz L+R 1000Hz

### AUX IN DOLBY PRO LOGIC SECTION

	TEST ITEMS	UNIT	NOMINAL	LIMIT
1	10% THD Power AC (FL, FR)	W	30	26
2	Frequency Response (CT) 1K=0dB	20Hz	dB	-10
		100Hz	dB	0
		10kHz	dB	0
		20kHz	dB	0
3	Frequency Response (RR, RL) 1K=0dB	20Hz	dB	-10
		100Hz	dB	0
		10kHz	dB	0
		20kHz	dB	0
4	Frequency Response (FL, FR) 1K=0dB	20Hz	dB	-10
		100Hz	dB	0
		10kHz	dB	0
		20kHz	dB	0
5	Frequency Response (Subwoofer) 1K=0dB	20Hz	dB	43
		100Hz	dB	43
6	10% THD Power AC (Subwoofer)	W	50	45
7	Subwoofer THD (100Hz Ref O/P)	%	0.5	1.0
8	THD (1kHz, Ref O/P) FR, FL	%	0.5	0.8
9	Channel Unbalance (L&R)	1kHz	dB	±1
10	Minimum Vol Hum (UNWGTD/WGTD)		mV	3
11	Maximum Vol Hum (UNWGTD/WGTD)		mV	8
12	S/N (UNWGTD/CCIR-ARM2K) (L&R)	1kHz	dB	60
13	Separation (FL & FR)		dB	48

#### REMARKS:

NOTE: All measurement should be done at bypass mode without EQ effects.

More audio prologic : on

ITEM 1,2,3,4 Should be set up at DVD mode, and set subwoofer as off, speaker as large.

## PERFORMANCE SPECIFICATIONS - CONTINUED

(FM) SECTION, FREQUENCY, MODULATION				
	TEST ITEMS	UNIT	NOMINAL	LIMIT
1	Tuning Range	MHz	87.5 - 108	-
2	I. F.	MHz	10.7	±0.3
3	30dB S/N	90MHz 98MHz 106MHz	μV μV μV	25 25 25
4	-3dB Limit Sens.		dB	16
5	I. F. Rej.	98MHz	dB	60
6	Image Rej.	106MHz	dB	30
7	Spurious Rejection (F+0.535 MHz) (Max. Sens. + 6dB)		dB	40
8	AM Suppression (60dB I/P)		dB	45
9	Mod. Hum (60dB I/P)		dB	48
10	Distortion at 1mV/m (Mono) 100 mV/m	22.5kHz 75kHz	% %	1 3
11	Audio Fidelity, (-3dB) (Pre-emphas) (75μS) (FR.FL) Subwoofer 1kHz=0dB	100Hz	Hz dB	60/9000 36
12	Power Out, 10% THD (75K DEV) 1K=1mV Subwoofer Power Out, 10% THD (75K DEV) 100Hz=1mV		W W	30 50
13	Low Voltage AC		%	80
14	S/N Ratio at 1mV (Stereo) Dev. 10% Pilot with "19" Filter	98MHz	dB	50
15	Alternate Channel Selective ±400 kHz		dB	25
16	Stereo Separation		dB	26
17	19 kHz Leak Carrier		dB	32
18	Stereo LED Indication		dB	26
19	Step Frequency		kHz	-
20	Auto Stop Sens.		dB	26
21	Minimum Vol Hum		mV	1.0
REMARKS:				
NOTE: All measurement should be done at bypass mode without EQ effects.				

## MW/FM STEREO & RDS TUNING WITH DVD PLAYER

FM STEREO & RDS SECTION 37.5kHz (MAIN+SUB 75 kHz (PILOT) 1.2K (RDS) DEV & 1kHz INPUT				
	UNIT	NOR	LIMIT	
1	Stereo Separation 1mV Input	MOD FREQ 100Hz MOD FREQ 1kHz MOD FREQ 10kHz	L/R R/L L/R R/L	dB dB dB dB
2	Stereo On Sensitivity	98MHz	dB	5
3	S.N.C (SEP=10dB)	98MHz	dB	34
4	RDS Indicator Sensitivity	98MHz	dB	28
5	RDS Seek Sensitivity	98MHz	dB	28
6	TA Indicator Sensitivity	98MHz	dB	28
7	TA Seek Sensitivity	98MHz	dB	28

## PERFORMANCE SPECIFICATIONS - CONTINUED

(AM) SECTION, AMPLITUDE, MODULATION				
	TEST ITEMS	UNIT	NOMINAL	LIMIT
1	Tuning Range	kHz	531 - 1602	-
2	I. F.	kHz	450	±3
3	S/N 10mV/m	1MHz	dB	36
4	Sens. (at S/N 20dB)	0.6MHz 1MHz 1.4MHz	dB dB dB	60 60 60
5	I. F. Rej.	0.6MHz	dB	50
6	Image Rej.	1.4MHz	dB	30
7	Spurious Rejection		dB	35
8	Bandwidth, (Max. Sens. +6 dB)	1MHz	kHz	6
9	ACA (±9 kHz) Input	1MHz	dB	20
10	AGC Figure Merit	100mV/m	dB	45
11	Distortion, 5mV/m, 30% 80%		% %	1 3
12	a. 10% THD Power AC b. Woofer 10%	DEV 80% DEV 80%	W W	30 50
13	a. Tweet (2nd 910kHz & 3rd 1350kHz) at 75 dB I/P		dB	15
14	Audio Fidelity, Centre ±(6) dB		Hz	60/2200
15	Low Voltage AC		%	80
16	a. Mod. Hum 10mV/M b. Hum at Min. Vol.		dB mV	36 1
17	Auto Stop Sens.		dB	64
18	Step Frequency		kHz	-
REMARKS:				
NOTE: All measurement should be done at bypass mode without EQ effects.				

## VIDEO SECTION

	TEST ITEMS	UNIT	NOMINAL	LIMIT
1	Signal Level (LT2-1) 75Ω Terminate Oscilloscope 75% Color Bar	Composite S-Y S-C (BURST) Component-Y	V(pp) V(pp) V(pp) V(pp)	1.0 0.714 0.286 0.714
2	Frequency Char. Composite (LT2-1, REF=0dB 0.5MHz, L156 VM700A Composite)	1.0/0.5MHz 2.0/0.5MHz 4.0/0.5MHz 4.75/0.5MHz 5.75/0.5MHz	dB dB dB dB dB	0 0 0 0 -2.0
3	Frequency Chap. S-Y (LT2-1, REF=0dB 0.5MHz, L156 VM700A) S-Y	1.0/0.5MHz 2.0/0.5MHz 4.0/0.5MHz 4.75/0.5MHz 5.75/0.5MHz	dB dB dB dB dB	0 0 0 0 -2.0
4	Composite Video-S/N (LT2-1) One Line Only L131 VM700A	100K-4.2MHz (SC TR ON)	dB	60
5	S-Y S/N (LT2-1 One Line Only)	100K-4.2MHz (SC TR ON)	dB	60
6	Color-AM Color-PM (One Line Only) (LT2-1, L131 VM700A)	100Hz-500kHz	dB dB	>40 >40

## PERFORMANCE SPECIFICATIONS - CONTINUED

DVD AUDIO SECTION (LINE OUTPUT)					
	TEST ITEMS	UNIT	NOMINAL	LIMIT	
1	THD+N ( LT2-1, 3-1 20kHz LPF On )	%		0.05	
2	Output Level (LT2-1, 3-1)	V	2	±0.3	
3	S/N ( LT2-1, 3-20 JIS-A Filter On )	dB	80	70	
4	Crosstalk ( LT2-1, 3-21.22 1kHz, BPF On )	dB		70	
5	Frequency Range (48kHz / 24BIT ) (LT2-1. 3-1~19) (FL, FR)	31Hz	dB	0	±1.0
		499Hz	dB	0	±1.0
		1kHz	dB	0	±1.0
		10kHz	dB	0	±1.0
		22kHz	dB	0	±1.0
6	Frequency Range (96kHz / 24BIT LT2-1, 6-1~12) (FL, FR)	20Hz	dB	0	±3.0
		400Hz	dB	0	±3.0
		1kHz	dB	0	±3.0
		12.8kHz	dB	0	±3.0
		20kHz	dB	0	±3.0
7	Digital Output Level (LT2-1, 1-1 75Ω Loading On )	mV	500	±100	
8	Dynamic Range	dB	-	80	
9	Black Band (TDV 545)	μM	-	600	
10	Finger Print (TDV 545)	μM	-	No.13	
11	Eccentric (MDVD142 TEAC)	μM	-	200	
12	Vertical (MDVD151 TEAC)	mm	-	0.6	
CD SECTION					
1	Interruption (Philips SBC444A)	μM	-	600	
2	Black Dot	μM	-	600	
3	Fingerprint	μM	-	No.18	
4	Eccentric (TCO-712 ABEX)	μM	-	140	
5	Vertical (TCO-713R ABEX))	mm	-	0.8	
CD-R SECTION					
1	Black Band (TCD-R025W )	μM	800	600	
2	Finger Printers (TCD-R025W )	μM	-	65	
3	Scratch (TCD-R021W )	mm	1.8	1.6	
4	Eccentric (TCD-R012W )	μM	-	140	
5	Deviation (TCD-R032W )	μM	-	810	
CD-RW SECTION					
1	Black Band (TCD-W025W )	μM	600	500	
2	Finger Printers (TCD-W025W )	μM	-	65	
3	Scratch (TCD-W021W )	mm	-	1.0	
4	Eccentric (TCD-W012W )	μM	-	140	
5	Deviation (TCD-W032W )	μM	-	810	

## PERFORMANCE SPECIFICATIONS - CONTINUED

AMPLIFIER SECTION					
	TEST ITEMS		UNIT	NOMINAL	LIMIT
1	10% THD Power AC (FL, FR)		W	30	26
2	Frequency Response (CT) 1K=0dB	20Hz	dB	-10	±5
		100Hz	dB	0	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±6
3	Frequency Response (RR, RL) 1K=0dB	20Hz	dB	-10	±5
		100Hz	dB	0	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±5
4	Frequency Response (FL, FR) 1K=0dB	20Hz	dB	-10	±3
		100Hz	dB	0	±3
		10kHz	dB	0	±3
		20kHz	dB	0	±3
5	Frequency Response (Subwoofer) 1K=0dB	20Hz	dB	36	30
		100Hz	dB	36	30
6	10% THD Power AC (Subwoofer)		W	50	45
7	Subwoofer THD (100Hz Ref O/P)		%	0.5	1.0
8	THD (1kHz, Ref O/P) FR, FL		%	0.5	0.8
9	Channel Unbalance (L&R)	1kHz	dB	±1	±3
10	Minimum Vol Hum (UNWGTD/WGTD)		mV	5	8
11	Maximum Vol Hum (UNWGTD/WGTD)		mV	8	15
12	S/N (UNWGTD/CCIR-ARM2K) (L&R)	1kHz	dB	60	55
13	Bass Effect FL, FR		dB	±10	±4
14	Treble Effect FL, FR		dB	±10	±4
15	Middle Effect FL, FR		dB	±10	±4
16	Separation (FL & FR)		dB	-	45
17	Crosstalk For Input (AUX/CD-REF) W/BPF		dB	-	45
REMARKS:					
Level Matching					
			CD -10dB	REF	
			AM 55% 5mV		±3
			FM 40kHz 1mV		±3
			AUX IN 750mV		±3
NOTE: All measurement should be done at bypass mode without EQ effects.					
Audio others: 6ch					
More audio prologic: on					
ITEM 1,2,3,4 Set up Subwoofer as off Speaker as large.					



## ELECTRICAL PARTS LIST

Ref. No.	Description	Mfr's Part No.	Qty.
<b>PCB</b>			
OUTPUT PCB	PCB STS61AAS-01-03 282x94x1.6mm (94HB)	033-ST561A-102	1
DISPLAY & KEY PCB	PCB STS61AAS-01-02 179x169x1.6mm/3 (94HB)	033-ST561A-101	1
RECTIFIER PCB	PCB STS61AAS-01-04 150x140x1.6mm (94V0)	033-ST561A-103	1
MPEG+SERVO PCB	PCB STS21AAS-01-02 150x120x1.6mm (FR4)	033-ST521A-101	1
LOAD MOTOR PCB	PCB STS21AAS-01-09 171x88.5x1.6mm/12 (94V0)	033-ST521A-108	1
SCART PCB	PCB STS21AAS-01-05 140x95x1.6mm/4 (94V0)	033-ST521A-104	1
TUNER PCB	PCB STS21AAS-01-04 141x130x1.6mm/3 (94V0)	033-ST521A-103	1
SUB-WOOFER AMPLIFIER PCB	PCB SWT1-01-01,02,03 (94V0)	033-00SWT1-600	1
CONNECTION PCB	PCB SWT1-01-04 (94V0)	033-00SWT1-600	1
SUB-WOOFER RECTIFIER PCB	PCB SWT1-01-05 (94V0)	033-00SWT1-600	1
LED PCB	PCB SWT1-01-06 (94V0)	033-00SWT1-600	1
SHIELDING PCB	PCB SWT1-01-07 200x86x0.8mm (94HB)	033-00SWT1-100	1
<b>ACCESSORY PORTION</b>			
	RM CONTROL HANDSET (AKAI/DV-R3100/3110/3300SS) w/CAM0122 SPY(FOR STS25/61)	043-R15448-051	1
	FFC CABLE 22 PINS L=158mm 4+150+4 P:1mm	040-220158-100	1
	UL2896 0.035x0.7		
	JP WIRE AWG26#UL1007 1500mm BLK CRIMPED	054-010A50-090	1
	w/TERMINAL SHS #STV8-TE AND TUBE (75ohm)		
	AV CABLE 1.5M COAXIAL BK CABLE w/3 RCA	122-004220-151	1
	PLUG RED,WHT,YEL #3C RCA&RCA-1500BK		
	SCART CABLE 2000mm w/3 PIN RCA HS02038-20-20	122-00A020-200	1
	BATTERY #GP15G 1.5V 'AA' SIZE (GP)	130-615004-001	2
	MERCURY & CADMIUM FREE (2PCS/PACKAGE)		
	AM LOOP ANT.388-88 & 388-89 MOLD BK (ABS)	132-020388-882	1
	5264-2 2.54mm w/5750mm BK AWG26#UL1007		
<b>AUX-IN (2.1CH) PORTION</b>			
<b>RESISTORS</b>			
R517,518,523,524,609	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	5
R561,563	*CdF RESISTOR 100 Kohm +-5% 1/16W (1/8W)	001-010451-016	2
R513,514	RESISTOR 18 Kohm +-5% 1/16W (1/8W)	001-018351-016	2
R515,516,521,527,528,562	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	6
R525,526	RESISTOR 220 Kohm +-5% 1/16W (1/8W)	001-022451-016	2
R519,520	RESISTOR 27 Kohm +-5% 1/16W (1/8W)	001-027351-016	2
R541	*CdF RESISTOR 33 Kohm +-5% 1/16W (1/8W)	001-033351-016	1
R529,530,558,559	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	4
R501,502,503,504,505,506	*CdF RESISTOR 47 Kohm +-5% 1/16W (1/8W)	001-047351-016	6
R507,508,509,510,511,512	RESISTOR 8.2 Kohm +-5% 1/16W (1/8W)	001-082251-016	6
<b>CAPACITORS</b>			
C501,502	CERAMIC CAP 100 pF/50V +-10%	003-010110-050	2
C584	CERAMIC CAP 0.002 uF/50V +-80%-20%	003-020280-050	1
C511,512	CERAMIC CAP 220 pF/50V +-10%	003-022110-050	2
C503,504,505,506,507,508,513,514,515,517,518	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	11
C516,525	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	2
C509	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	1
C570	ELECT CAP 470 MFD/16V +-20% (10x12.5)	006-047100-16D	1
<b>TRANSISTORS</b>			
Q501,502	TRLNPNSS-TAP&TO-092 3DG1815	008-618150-000	2
<b>INTEGRATED CIRCUIT</b>			
IC502	IC BA4558N O.AMP	010-404558-000	1
<b>DIODE</b>			
ZD601	ZENER BZX55C8V8CECCL, 6.8V, 1/2W (ROHM)	011-010068-120	1

## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
<b>SWITCH</b>			
SW501	SLIDE SW 1P2T SS12F47G9	025-120091-003	1
<b>INDUCTORS</b>			
F5011,502,503	*CdF FERRITE BEAD INDUCTOR #BL01RN1-A62 0.45 uH/7A (5x3.6mm) (87-008-372-01)	032-101162-000	3
<b>MISCELLANEOUS</b>			
JK501	PIN JACK HSP-253V-14 (KUNMING)	118-020253-000	1
WH501	YELLOW,RED,WHITE/BODY WHITE FFC CONN 6232 22 PINS w/o LOCK PITCH:1mm 00 6232 022 006 800 VERTICAL TYPE	135-006232-220	1
<b>VOLUME PORTION</b>			
<b>RESISTORS</b>			
R1604	*CdF RESISTOR 10 ohm +-5% 1/16W (1/8W)	001-010051-016	1
R610,1693,1694, J290	*CdF RESISTOR 1 Kohm +-5% 1/16W (1/8W)	001-010251-016	4
R570,571,1691,1692	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	4
R645,646,647	*CdF RESISTOR 150 ohm +-5% 1/16W (1/8W)	001-015151-016	3
R1702,1703	*CdF RESISTOR 22 ohm +-5% 1/16W (1/8W)	001-022051-016	2
R1650,1651,1663,1665,1671,1673	*CdF RESISTOR 2.2 Kohm +-5% 1/16W (1/8W)	001-022251-016	6
R1618,1619,1624,1625,1626,1627,1634,1635,1664,1666,1672,1674	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	12
R1661,1675	*CdF RESISTOR 3.3 Kohm +-5% 1/16W (1/8W)	001-033251-016	2
R1701	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	1
R1649	RESISTOR 56 ohm +-5% 1/16W (1/8W)	001-056051-016	1
R1662,1676	RESISTOR 6.2 Kohm +-5% 1/16W (1/8W)	001-062251-016	2
R1695,1696,1698,1699	RESISTOR 68K +-5% 1/16W (1/8W)	001-068351-016	4
<b>CAPACITORS</b>			
C1660,1680	CERAMIC CAP 0.002 uF/50V +-80%-20%	003-020280-050	5
C1661,1663,1681,1682	#MYLAR CAP 0.01 uF/100V +-10%	004-010310-100	2
C1662,1679	#MYLAR CAP 0.1 uF/50V +-10%	004-010410-050	4
C1664,1678	#MYLAR CAP 0.015 uF/100V +-5%	004-015350-100	2
C1614,1615,1626,1627,1638,1639,1665,1666,1667,1668,1669,1670,1671,1672,1674,1675,1676	#MYLAR CAP 0.0022 uF/100V +-10%	004-022210-100	2
C1673,1677	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	17
C315,653,655	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	2
C1658	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	3
	ELECT CAP 470 MFD/16V +-20% (10x12.5)	006-047100-16D	1
<b>TRANSISTORS</b>			
Q522,523,1606,1607,1608,1609,1610,1611,1612,1617	TRLNPNSS-TAP&TO-092 3DG1815	008-618150-000	10
Q1616	TRLNPNPPWR-TAP&TO-092 3CA8550	008-685500-000	1
Q605	TR NPNSS-TAP&SC-072 DTC114ES (ROHM)	008-801141-000	1
Q521	TR NPNSS-TAP&SC-072 DTA114TS/A (ROHM)	008-801142-000	1
Q1603	KRA-111M (KEC) TR PNPSS-TAP&SC-072 DTA114YSTP/DTA114YS	008-801144-000	1
<b>INTEGRATED CIRCUIT</b>			
IC504	ICAUDIOLEVELSENSOR PT2322-S (SOP) 6-CHANNEL AUDIO PROCESSOR (ANGUS)	010-142322-000	1
<b>DIODES</b>			
D501,1619,1620,1621,1622,1623,1624,1625,1626,1627,1628,1629	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	12
<b>WIRES</b>			
	JP WIRE AWG26#1007 3x3mm 100mm BLACK	051-673100-009	1
	JP WIRE AWG26#1007 3x3mm 150mm BLACK	051-673150-009	1

## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
A' B'	JP WIRE AWG26#1007 5x5mm 220mm BLACK	051-675220-009	2
	JP WIRE AWG26#1007 5x5mm 280mm BLACK	051-675280-009	1
<b>MISCELLANEOUS</b>			
JK505	MINI DIN SOCKET MDSL-09SC0A (LEOCO)	119-000090-000	1
RL502	RELAY 12V 200mW ME-1-12BS 1P2T	128-120112-001	1
RL501	RELAY 12V 200mW ME-2-12 2P2T	128-120212-001	1
WH502	*CdF HEADER CTL 8 PINS PHS-08 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR) *CdF SOLDERING LUG	135-PHS080-080 137-300000-000	1 2
<b>CPU PORTION</b>			
<b>RESISTORS</b>			
R301,302,303,304,305,306,307, 308,309,316,318,319,321,322, 330,331,333,334,337,338,339, 342,343,344,345,346,347,350, 361,364,384,398,399,400,401	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	35
R348	*CdF RESISTOR 15 Kohm +-5% 1/16W (1/8W)	001-015351-016	1
R313,314,315	*CdF RESISTOR 220 ohm +-5% 1/16W (1/8W)	001-022151-016	3
R325	*CdF RESISTOR 2.2 Kohm +-5% 1/16W (1/8W)	001-022251-016	1
R340,341	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	2
R402,403	RESISTOR 27 Kohm +-5% 1/16W (1/8W)	001-027351-016	2
R332,335,336	*CdF RESISTOR 33 ohm +-5% 1/16W (1/8W)	001-033051-016	3
R326,385,391	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	3
R560,564	RESISTOR 5.6 Kohm +-5% 1/16W (1/8W)	001-056251-016	2
R324	RESISTOR 8.2 Kohm +-5% 1/16W (1/8W)	001-082251-016	1
<b>CAPACITORS</b>			
C302	CERAMIC CAP 0.02 uF/50V +-80%-20%	003-020380-050	1
C307,308	CERAMIC CAP 68 pF/50V +-10%	003-068010-050	2
C305,306	CERAMIC CAP 30 pF/50V +-5% (NPO) (CC45-CH1H300J/RBU04CH300J-L)	003-430050-050	2
C309	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	1
C301	ELECT CAP 47000 MFD/5.5V DC +-80-20% (STAR CAP) (SC-DA5R5 473 H)	006-747300-05C	1
<b>TRANSISTORS</b>			
Q301	TR NPNSST-8&&&&&&&&& 3DG1417	008-801417-000	1
Q302	TR NPNSST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	1
<b>INTEGRATED CIRCUITS</b>			
IC302	IC 74HC373(SOL)/SN74HC373D/DW TC74HC373AF	010-070373-000	1
IC301	ICMCU-48K-LCD TMP87EP26F-3D72 (ALDIAUS-DVD32) FLASH MCU	010-918726-000	1
<b>DIODES</b>			
D301,302,303,304	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	4
<b>RESONATOR</b>			
CX301	CERAMIC RESONATOR 8 MHz CSA 8.00 MTZ (MURATA) (87-A70-120-08C)	020-000800-000	1
<b>MISCELLANEOUS</b>			
R385 TO R390	FERRITE CORE B15 UH 26x30x13 (LF-130) OD:26mm ID:13mm T=30mm	032-226030-013	1
JK502	JP WIRE AWG28#1007 4x4mm 40mm BLACK PIN JACK BOARD MSP-244V1-34 NI YEL,ORN, WHT,RED	051-874040-009 118-020244-000	1 1
JK503	DIN JACK HDC-056 (KUNMING)	119-000056-000	1
WH305	*CdF HEADER CTL 3 PINS PHS-03 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS030-030	1

## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
WH301,302,304	HEADER CTL 10 PINS PHS-10 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR) HSG (2.54mm) MOLEX 5264-06 TO JST 6P-SAN w/260mm R,BK,Y,OR,GR,BL AWG28#UL1007	135-PHS100-100 136-KZ0626-000	3 1
WH303			
<b>FRONT PANEL PORTION</b>			
<b>RESISTORS</b>			
R367,368,369,375,376,377,378	*CdF RESISTOR 100 ohm +-5% 1/16W (1/8W)	001-010151-016	7
R358	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	1
R354	*CdF RESISTOR 1.5K +-5% 1/16W (1/8W)	001-015251-016	1
R373	*CdF RESISTOR 220 ohm +-5% 1/16W (1/8W)	001-022151-016	1
R355	*CdF RESISTOR 2.2 Kohm +-5% 1/16W (1/8W)	001-022251-016	1
R353	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	1
R356	*CdF RESISTOR 3.3 Kohm +-5% 1/16W (1/8W)	001-033251-016	1
R359	*CdF RESISTOR 33 Kohm +-5% 1/16W (1/8W)	001-033351-016	1
R370	RESISTOR 390 ohm +-5% 1/16W (1/8W)	001-039151-016	1
R352,372	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	2
R351	*CdF RESISTOR 47 Kohm +-5% 1/16W (1/8W)	001-047351-016	1
R379	RESISTOR 51 Kohm +-5% 1/16W (1/8W)	001-051351-016	1
R357	RESISTOR 5.6 Kohm +-5% 1/16W (1/8W)	001-056251-016	1
R383	RESISTOR 68 ohm +-5% 1/16W (1/8W)	001-068051-016	1
<b>CAPACITORS</b>			
C312	CERAMIC CAP 0.001 uF/50V +-80%-20%	003-010280-050	1
C311	CERAMIC CAP 0.1 uF/16V +-80%-20%	003-010480-016	1
C310	ELECT CAP 47 MFD/10V +-20% (SMALL SIZE) (5x7)	006-147000-10D	1
<b>INTEGRATED CIRCUIT</b>			
IC304	ICDISPLAYDRIVER-VFD PT6311/PT6318 (ANGUS) TP6311Q	010-146311-001	1
<b>SWITCHES</b>			
SW301,302,303,304,305,306,307, 309,311	TACT SWITCH 4P 5mm 100G #1102A-4/ EVQ PAC 05R (=021-KHH901-000)	021-110200-002	9
<b>WIRES</b>			
	JP WIRE AWG26#1007 3x3mm 160mm BLACK HSG CD363-4A PIN JST PHR 2mm w/250mm RED BLK,WHT,BLUE JP AWG28#1007 SLDG 4mm HSG CD668R-10 JST PHR 2mm WITH 250mm RED BK,W,Y,BL,OR,R,BK,W,Y AWG28#1095 SLDG4mm	051-673160-009 136-040363-200 136-100668-200	1 1 1
<b>MISCELLANEOUS</b>			
LED302,303,304	LED-G-2X5M-N-8&&&-8&&& SE-6221AT 2x5mm GREEN, 21mm LEAD	110-003421-205	3
LED301	LED-G-2X5&S-8&&&-8&&& W25319GSC 2x5mm GREEN SUPER BRIGHT	110-253191-215	1
SR301	REMOTE/CONTROL PHOTO RECEIVER ROHM/RPM7138-V4	111-007138-000	1
VFD301	VFD-2COL100x20.5SM-033P VACUUM FLUORESCENT DISPLAY #VFD20-1002 (ZEC) *CdF SOLDERING LUG	115-001002-000 137-300000-000	1 1
<b>LINEAR PORTION</b>			
<b>RESISTORS</b>			
R822	*CdF RESISTOR 10 ohm +-5% 1/16W (1/8W)	001-010051-016	1
R828	*CdF RESISTOR 1 Kohm +-5% 1/16W (1/8W)	001-010251-016	1
R805,807,808,812,813,814,817, 818,830,843	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	10
R820	*CdF RESISTOR 100 Kohm +-5% 1/16W (1/8W)	001-010451-016	1
R811	RESISTOR 1.8 Kohm +-5% 1/16W (1/8W)	001-018251-016	1
R802,815	*CdF RESISTOR 220 ohm +-5% 1/16W (1/8W)	001-022151-016	2

## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
R803	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	1
R821,823,825	*CdF RESISTOR 33 ohm +-5% 1/16W (1/8W)	001-033051-016	3
R804,816,826,827	*CdF RESISTOR 470 ohm +-5% 1/16W (1/8W)	001-047151-016	4
R801,819,844	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	3
R809,829	RESISTOR 5.6 Kohm +-5% 1/16W (1/8W)	001-056251-016	2
R810	RESISTOR 680 ohm +-5% 1/16W (1/8W)	001-068151-016	1
<b>CAPACITORS</b>			
C815,816	CERAMIC CAP 0.1 uF/16V +80%-20%	003-010480-016	2
C801,802,803,804,805,806,807,808,810,812,814,818,821,826,829,831,833,835,837,845	CERAMIC CAP 0.02 uF/50V +80%-20%	003-020380-050	20
C843,844	ELECT CAP 4.7 MFD/50V +-20% (5x11)	006-004000-50D	2
C827,840,848,851,852,854	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	6
C817	ELECT CAP 100 MFD/25V +-20% (6.3x11)	006-010100-25D	1
C813	ELECT CAP 100 MFD/35V +-20% (8x11.5)	006-010100-35D	1
C846,849,853	ELECT CAP 1000 MFD/10V +-20% (10x16)	006-010200-10D	3
C820,832,838	ELECT CAP 220 MFD/16V +-20% (8x11.5)	006-022100-16D	3
C834,839	ELECT CAP 220 MFD/25V +-20% (8x11.5)	006-022100-25D	2
C830	ELECT CAP 2200 MFD/10V +-20% (VX/12.5x20)	006-022200-10C	1
C809,825	ELECT CAP 2200 MFD/16V +-20% (12.5x25)	006-022200-16D	2
C811	ELECT CAP 3300 MFD/25V +-20% (16x31.5)	006-033200-25D	1
C819,836	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	2
C847	ELECT CAP 47 MFD/25V +-20% (5x11)	006-047000-25D	1
C850	ELECT CAP 470 MFD/10V +-20% (8x11.5)	006-047100-10D	1
<b>TRANSISTORS</b>			
Q807,815	TR PNPSS-TAP&SC-043 2SA1015-GR TOSHIBA	008-110150-000	2
Q806,814	(F008-211850-005) TRANSISTOR 2SB1566E/F (ROHM)	008-201566-000	2
Q801,805,813	TRLNPNSS-TAP&TO-092 3DG1815	008-618150-000	3
Q808	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
Q809	TRLNPNPWR-TAP&TO-092 3CA8550	008-685500-000	1
Q804,812	TR PNPGEN-TAP&SC-072 DTA123ESA (ROHM)	008-800123-003	2
	(88-WA2-662-08)		
Q802,803,811	TR NPNSS-TAP&SC-072 DTC114ES (ROHM)	008-801141-000	3
<b>INTEGRATED CIRCUITS</b>			
IC801	(F010-207805-001) TR &&VOL-REG&TO-092	008-V07805-000	1
	LM78L05ACZ 5V VOLTAGE REGULATOR		
IC802,803	ICREGULA-P-005V001A BA05ST (ROHM)	010-400005-002	2
<b>DIODES</b>			
D810,811,815,816,817,818,822,823	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50	011-004148-000	8
	KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH		
DZ801	ZENER DIODE #MTZJT-7224D 24V 1/2W	011-010024-120	1
DZ802	ZENER IN-5231B, HZ5C1, 5.1V, 1/2W	011-010051-120	1
DZ807	ZENER DIODE 6.2V #MTZJ6.2C	011-010062-005	1
DZ803,804,806	ZENER DIODE 10V #MTZJ10D 1/2W (ROHM)	011-010100-122	3
D809,819,820,821,824,825,826,827,828	RECTIFIER IN-4001B	011-024001-000	9
D801,802,803,804	(F011-005401-000) RECTIFIER IN-5401BL	011-025401-000	4
D805,806,807,808	RECTIFIER IN5822	011-025822-000	4
<b>SWITCH</b>			
	PUSH SWITCH 2P2T PS3-22SP-W4CW-3.2	021-032222-000	1
	w/UL VDE SEMKO APPROVAL (LUP FUNG)		
<b>INDUCTOR</b>			
L601	*CdF FERRITE BEAD INDUCTOR #BL01RN1-A62	032-101162-000	1
	0.45 uH/7A (5x3.6mm) (87-008-372-01)		
<b>MISCELLANEOUS</b>			

## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
	PT003WEI35/14&&WEN& 230V:12.4V EN STD	123-A33032-100	1
	w/o FUSE (P3512-A14E)		
	PT035WEI57/35&F&WVDE 230V:8V/13V/22V/	123-D53521-400	1
	4.2V w/FUSE 130°C (L5735-P01E)		
F804,805	MICRO FUSE #251.630 630mA/125V WFF-215.630	124-006310-000	2
FS802,803	*CdF FUSE #S5.6 2.5A/250V 5x20mm TIME LAG	124-025020-001	2
	(CUL/VDE/SEMKO/BSI APP.)		
RL801	RELAY 9V SDT-S-109LMR	128-090109-000	1
	PLA-ULN-705*-VDE-MG VDE APP.CORD	134-B11331-006	1
	2250mm MIGRATION (HARVEST)		
CN806	*CdF HEADER MOLEX 4 PINS 5267-04A PITCH	135-005267-040	1
	2.5mm STRAIGHT TYPE		
CN801	HEADER MOLEX 5 PINS 5267-05A PITCH 2.5mm	135-005267-050	1
	STRAIGHT TYPE		
CN803	PIN HEADER 2 PINS TJC6-02P3 PITCH:7.92mm	135-00TJC6-020	1
	VERTICAL 1.14mm SQUARE PIN		
WH803	HEADER CTL 4 PINS PHS-04 PITCH 2mm	135-PHS040-040	1
	STRAIGHT TYPE WHT COLOR (MARKING:HR)		
<b>WIRES</b>			
TH3 TO C813+	JP WIRE AWG26#1007 5x5mm 180mm BLACK	051-675180-009	1
CN805 TO WH502	HSG (2mm) JST PHR-08 TO 8P-SAN w/180mm	136-F00818-001	1
	RED,BLACKx7 AWG26#UL1007		
WH801	HSG (2.5mm) PEC 2507H-09 TO 2501H-09	136-J10935-001	1
	w/350mm WHITE,GREYx8 AWG24#UL1007		
<b>MPEG+SERVO PORTION</b>			
<b>RESISTORS</b>			
R10,12,230	CHIP RESISTOR 10 ohm +-5% 1/16W (0603/1608)	001-310052-016	3
R1,109,132	CHIP RESISTOR 100 ohm +-5% 1/16W (0603/1608)	001-310152-016	3
R14,29,39,58,100,101,120,153,177,227,229,234,236,237,241,243, FB18,19,20	CHIP RESISTOR 0 ohm +-5% 1/16W (0603/1608)	001-300052-016	19
R9,11,97,106,107,122,134,135,232	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	9
R5,6,19,20,21,22,23,56,95,102,123,124,126,130,131,141,142,143,144,145,146,147,148,157,163,200	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	26
R31,47,48,91,94,201,202,203,204	CHIP RESISTOR 100 Kohm +-5% 1/16W (0603/1608)	001-310452-016	9
R32,33,34,35	CHIP RESISTOR 1 ohm +-5% 1/16W (0603/1608)	001-310852-016	4
R180,183,188,191,194,197	CHIP RESISTOR 12 Kohm +-5% 1/16W (0603/1608)	001-312352-016	6
R125,218,219	CHIP RESISTOR 180 ohm +-5% 1/16W (0603/1608)	001-318152-016	3
R208,209,212,213,216,217	CHIP RESISTOR 2 Kohm +-5% 1/16W (0603/1608)	001-320252-016	6
R164	CHIP RESISTOR 22 ohm +-5% 1/16W (0603/1608)	001-322052-016	1
R15,16,206,207,210,211,214,215	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	8
R223	CHIP RESISTOR 2.2 Kohm +-5% 1/16W (0603/1608)	001-322252-016	1
R24,25,26,30,50,105	CHIP RESISTOR 22 Kohm +-5% 1/16W (0603/1608)	001-322352-016	6
R231	CHIP RESISTOR 2.4 Kohm +-5% 1/16W (0603/1608)	001-324252-016	1
R182,185,190,193,196,199	CHIP RESISTOR 30 Kohm +-1% 1/16W (0603/1608)	001-330312-016	6
R59,65,66,67,68,69,70,71,73,74,75,77,79,80,110,111,127,128,165,166,167,168,169,170,171,175	CHIP RESISTOR 33 ohm +-5% 1/16W (0603/1608)	001-333052-016	26
R129,224	CHIP RESISTOR 330 ohm +-5% 1/16W (0603/1608)	001-333152-016	2
R3,4,52,53,54,55,60,181,184,192,195,198	CHIP RESISTOR 3.3 Kohm +-5% 1/16W (0603/1608)	001-333252-016	13
R155	CHIP RESISTOR 392 ohm +-1% 1/16W (0603/1608)	001-339112-016	1
R13,205	CHIP RESISTOR 470 ohm +-5% 1/16W (0603/1608)	001-347152-016	2

## ELECTRICAL PARTS LIST - CONTINUED

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# ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
U16	ICMPEG ZR36732PQC	010-893673-000	1
<b>DIODES</b>			
ZD1	ZENER DIODE 6.8V #MTZJ6.8B	011-010068-001	1
D10	RECTIFIER IN-4002,100V	011-024002-990	1
D1,2,3,4,5,6,7	CHIP DIODE (SMT) RLS4148 (ROHM)	011-044148-000	7
<b>INDUCTORS</b>			
L2,4,5,13	*CdF INDUCTOR 10 uH CEC-100K +/-10%	018-010016-000	4
L26,27,28,29	C.COIL 1.8uH +/-10% TAPE&REEL LK1608 1R8K-T/ MGFI1608C1R8/SDFL1608Q1R8KT	018-040187-002	4
L6	C.COIL 2.7 uH +/-10% TAPE&REEL LK2125 2R7K-T/ MGFI2012C2R7/SDFL2012Q2R7KT	018-040277-001	1
FB1,2,3,4,5,6,7,8,9,10,11,12,13, 14,15,16,21	FERRITE BEAD #BLM11A102S (MURATA)	032-111102-000	17
<b>CRYSTALS &amp; RESONATOR</b>			
Y3	CRYSTAL 12.5 MHz +/-30ppm HC-49/U/ALCCBEG	009-612500-000	1
Y4	CRYSTAL 27 MHz HC-49/U/ALCCGBE	009-627000-003	1
Y1	RESONATOR 33.8688 MHz 30ppm-50ppm ZTA33.86MX (CHEQUERS)	020-338688-000	1
<b>WIRES</b>			
U2 GND TO U29 GND	FFC CABLE L=240mm P=1mm SEPH02-01960(3) 24P-4+232+4-P1-CF/90 UL2896 0.035x0.7	040-240240-100	1
J3	*CdF JP WIRE AWG26#1007 3x3mm 70mm BLACK HSG (2mm) JST PHR-05 TO PHR-05 w/258mm BR, RED,ORN,YEL,GN AWG28#UL1095	051-673070-009	1
J2	HSG (2mm) JST PHR-06 TO PHR-06 w/188mm BR, RED,ORN,YEL,GN,BL AWG28#UL1095	136-C00618-800	1
<b>MISCELLANEOUS</b>			
J5	HEADER MOLEX 6 PINS 5267-06A PITCH 2.5mm STRAIGHT TYPE	135-005267-060	1
J10	FFC CONN 6232 22 PINS w/o LOCK PITCH:1mm 00 6232 022 006 800 VERTICAL TYPE	135-006232-220	1
J1	FFC CONNECTOR 24 PINS PITCH:1mm LG BRAND GF106-24S-LS HORIZONTAL UPPER CONTACT	135-0GF106-240	1
J6	HEADER 4 PINS PEC #2507-WS-4 PITCH 2.5mm VERTICAL REPLACE:135-005267-040	135-2507WS-040	1
J9	HEADER 9 PINS PEC #2507-WS-9 PITCH 2.5mm VERTICAL REPLACE:135-005267-090	135-2507WS-090	1
J3	HEADER CTL 5 PINS PHS-05 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS050-050	1
J2	*CdF HEADER CTL 6 PINS PHS-06 PITCH 2mm STRAIGHT TYPE WHT COLOR (MARKING:HR)	135-PHS060-060	1
<b>DVD MECHANISM - STSD-010SMT</b>			
CN1	DVD-FLC-01-SAMG-N DVD MECHANISM FOR CD-R CMS-S21MG6 (SAMSUNG) LEAF SWITCH LS-121-0A (LUP FUNG) CONN PIN 3 PINS (3.5+58+3.5) PITCH 2mm UL AWG26#2651 (F135-2001WR-051) HEADER 5 PINS #A2001WR2-05/2001-WR-5 P:2mm HORIZONTAL MOTOR-DC-006V-NORMAL 6V #RF-500TB-12560 (MABUCHI) 10gm (KSM-2101-ABM-AL)	163-000216-000	1
		022-001210-001	1
		050-030065-200	1
		135-2001WR-050	1
		151-061256-000	1
<b>RDS PORTION</b>			
<b>RESISTORS</b>			
R458	CHIP RESISTOR 1 Kohm +/-5% 1/16W (0603/1608)	001-310252-016	1
R471	CHIP RESISTOR 18 Kohm +/-5% 1/16W (0603/1608)	001-318352-016	1

# ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
R454,456	CHIP RESISTOR 2.2 Kohm +/-5% 1/16W (0603/1608)	001-322252-016	2
R457	CHIP RESISTOR 330 Kohm +/-5% 1/16W (0603/1608)	001-333452-016	1
R455	CHIP RESISTOR 470 Kohm +/-5% 1/16W (0603/1608)	001-347452-016	1
R453	CHIP RESISTOR 560 ohm +/-5% 1/16W (0603/1608)	001-356152-016	1
<b>CAPACITORS</b>			
C459	CHIP CAP 0.1 uF/16V +/-10% (0603/1608) (87-A10-260-08G) (C1608JB1C104K) (TDK)	003-510412-016	1
C454	CHIP CAP 0.0022 uF/50V +/-10% (0603/1608) (UMK107B222KZ-TM)	003-522212-050	1
C456	CHIP CAP 0.047 uF/25V +/-10% (0603/1608)	003-547312-025	1
C452,453	CHIP CAP 0.022 uF/25V +/-10% (0603/1608) (MCH182C223KK/GRM39X7R223K25PT)	003-522312-025	2
C460	CHIP CAP 560 pF/50V +/-10% (0603/1608)	003-556112-050	1
C457,458	CHIP CAP 33 pF/50V +/-5% NPO (0603/1608) (GRM39COG330J50PT/MCH185A330JK)	003-633052-050	2
C461	ELECT CAP 2.2 MFD/50V +/-20% (5x11)	006-002000-50D	1
C451	ELECT CAP 100 MFD/10V +/-20% (5x11)	006-010100-10D	1
<b>TRANSISTORS</b>			
Q412,413	TR NPNSST-RAD&SC-059 2SC2712GR (89-327-125-08)	008-A02712-000	2
<b>CRYSTAL</b>			
CX402	CRYSTAL 4.332 MHz CSA309 CL=16pF CITIZEN (87-A70-091-01G)	009-604332-000	1
<b>INTEGRATED CIRCUIT</b>			
IC403	ICRDS DECODER BU1923F (ROHM)	010-351923-001	1
<b>DIODES</b>			
DZ402	ZENER IN-5231B, HZ5C1, 5.1V, 1/2W	011-010051-120	1
<b>INDUCTOR</b>			
L402	*CdF INDUCTOR 100 uH /1128/CEC-101K +/-10% LAL03 TB 101K	018-010014-000	1
<b>SCART PORTION</b>			
<b>RESISTORS</b>			
R715	*CdF RESISTOR 100 ohm +/-5% 1/16W (1/8W)	001-010151-016	1
R717,718,720	*CdF RESISTOR 10 Kohm +/-5% 1/16W (1/8W)	001-010351-016	3
R702,703	*CdF RESISTOR 12 Kohm +/-5% 1/16W (1/8W)	001-012351-016	2
R721	RESISTOR 2 Kohm +/-5% 1/16W (1/8W)	001-020251-016	1
R701,706,722	RESISTOR 2.7 Kohm +/-5% 1/16W (1/8W)	001-027251-016	3
R708,709	*CdF RESISTOR 33 Kohm +/-5% 1/16W (1/8W)	001-033351-016	2
R707,710,711,712,719	*CdF RESISTOR 4.7 Kohm +/-5% 1/16W (1/8W)	001-047251-016	5
<b>CAPACITORS</b>			
C701,702	ELECT CAP 0.22 MFD/50V +/-20% (VX/5x11)	006-000200-50C	2
C703,704	ELECT CAP 10 MFD/50V +/-20% (5x11)	006-010000-50D	2
C711,712	ELECT CAP 100 MFD/16V +/-20% (5x11)	006-010100-16D	2
<b>TRANSISTORS</b>			
Q701,702,708,709	TR NPNGEN-BUL&TO-092 3DG9014 (9014)	008-609014-000	4
<b>INDUCTORS</b>			
FB701,702,703,704,705,706,707	*CdF FERRITE BEAD INDUCTOR #BL01RN1-A62 0.45 uH/7A (5x3.6mm) (87-008-372-01) FFC CABLE 22 PINS L=200mm 4+192+4 P:1mm UL2896 0.035x0.7 (TUNG HING)	032-101162-000	7
		040-220200-100	1
<b>MISCELLANEOUS</b>			
WH702, J11	FFC CONN 6232 22 PINS w/o LOCK PITCH:1mm 00 6232 022 006 800 VERTICAL TYPE	135-006232-220	2
JK701	RGB CONNECTOR SOCKET 21 PINS HRC-021V-07 (KUNMING)/MRC-021V-04 (HONDA)	135-HRC021-210	1

# ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
<b>TUNER PORTION</b>			
<b>RESISTORS</b>			
JP403 ,404,405,406,407,408,409,421,423,425	CHIP RESISTOR 0 ohm +-5% 1/16W (0603/1608)	001-300052-016	10
R401,410,412,443,444,445,459,465	CHIP RESISTOR 1 Kohm +-5% 1/16W (0603/1608)	001-310252-016	8
R415,430,431	CHIP RESISTOR 100 ohm +-5% 1/16W (0603/1608)	001-310152-016	3
R451,461,409	CHIP RESISTOR 10 Kohm +-5% 1/16W (0603/1608)	001-310352-016	3
R402,403,435,448	CHIP RESISTOR 100 Kohm +-5% 1/16W (0603/1608)	001-310452-016	4
R420	CHIP RESISTOR 12 Kohm +-5% 1/16W (0603/1608)	001-312352-016	1
R421,442	CHIP RESISTOR 18 Kohm +-5% 1/16W (0603/1608)	001-318352-016	2
R467	CHIP RESISTOR 22 ohm +-5% 1/16W (0603/1608)	001-322052-016	1
R406,416	CHIP RESISTOR 220 ohm +-5% 1/16W (0603/1608)	001-322152-016	2
R405,422,438	CHIP RESISTOR 2.2 Kohm +-5% 1/16W (0603/1608)	001-322252-016	3
R413,417,423	CHIP RESISTOR 22 Kohm +-5% 1/16W (0603/1608)	001-322352-016	3
R411,419,424,425,426,427,452	CHIP RESISTOR 3.3 Kohm +-5% 1/16W (0603/1608)	001-333252-016	7
R418	CHIP RESISTOR 3.9 Kohm +-5% 1/16W (0603/1608)	001-339252-016	1
R404,407	CHIP RESISTOR 47 ohm +-5% 1/16W(0603/1608)	001-347052-016	2
R408	CHIP RESISTOR 470 ohm +-5% 1/16W (0603/1608)	001-347152-016	1
R428,429,436,447	CHIP RESISTOR 4.7 Kohm +-5% 1/16W (0603/1608)	001-347252-016	4
R446	CHIP RESISTOR 47 Kohm +-5% 1/16W (0603/1608) (MCR03EZJH-473)	001-347352-016	1
R414	CHIP RESISTOR 56 ohm +-5% 1/16W (0603/1608)	001-356052-016	1
R437	CHIP RESISTOR 560 ohm +-5% 1/16W (0603/1608)	001-356152-016	1
R460	CHIP RESISTOR 5.6 Kohm +-5% 1/16W (0603/1608)	001-356252-016	1
R466	CHIP RESISTOR 8.2 Kohm +-5% 1/16W (0603/1608)	001-382252-016	1
<b>CAPACITORS</b>			
C421	CHIP CAP 0.001 uF/50V +-10% (0603/1608) (MCH185C102KK/GRM39X7R102K50PT)	003-510212-050	1
C403,404,409,410,415	CHIP CAP 0.01 uF/50V +-10% (0603/1608) (GRM39B103K50PT)	003-510312-050	5
C418,427,436	CHIP CAP 0.1 uF/16V +-10% (0603/1608) (B7-A10-260-08G) (C1608JB1C104K) (TDK)	003-510412-016	3
C422,428,429,432,433	CHIP CAP 0.015 pF/50V +-10% (0603/1608)	003-515312-050	5
C438	CHIP CAP 0.0022 uF/50V +-10% (0603/1608) (UMK107B222KZ-TM)	003-522212-050	1
C402,405,411,414,439,441,444,466	CHIP CAP 0.022 uF/50V +-10% (0603/1608)	003-522312-050	8
C473,476	CHIP CAP 0.0047 uF/50V +-10% (0603/1608)	003-547212-050	2
C406	CHIP CAP 0.047 uF/25V +-10% (0603/1608)	003-547312-025	1
C423,424	CHIP CAP 0.47 uF/10V +-10% (0603/1608) (LMK107BL474KA-T)	003-547412-010	2
C420,448,449	(F003-610112-050) CHIP CAP 100 pF/50V +-5% NPO (0603/1608)	003-610152-050	3
C413	CHIP CAP 15 pF/50V +-5% NPO (0603/1608) (UMK107CH150JZ-TM)	003-615052-050	1
C446,447	CHIP CAP 24 pF/50V +-5% NPO (0603/1608)	003-624052-050	2
C475	(F003-527012-050) CHIP CAP 27 pF/50V +-5% NPO (0603/1608) (UMK107CH270JZ-TM)	003-627052-050	1
C412	POLY CAP 350 pF/50V +-5% (B351J09P2HH33AAA)	005-035100-000	1
C425,467,468	ELECT CAP 0.47 MFD/50V +-20% (5x11)	006-000400-500	3
C417,426,430,431	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-500	4
C435	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-500	1
C437,465,470	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	3
C419	ELECT CAP 22 MFD/25V +-20% (5x11)	006-022000-25D	1

# ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
C416,442	ELECT CAP 220 MFD/10V +-20% (6.3x11)	006-022100-10D	2
C471	ELECT CAP 220 MFD/16V +-20% (8x11.5)	006-022100-16D	1
C408	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	1
TC401	*CdF TRIMMER CAP CVN610 3-10pF WHITE (6x6x5mm) (JIN MYOUNG)	007-200610-000	1
<b>TRANSISTORS</b>			
Q402	CHIP NJFET SST201/SST201B-T1 (SILICONIX) 2SK208Y TOSHIBA	008-A00201-010	1
Q409,410	TR PNPPWR-RAD&SC-059 2SA1036K	008-A01036-000	2
Q403,404,405,411	TR NPNSST-RAD&SC-059 2SC2712GR (89-327-125-08)	008-A02712-000	4
<b>CRYSTAL</b>			
CX401	CRYSTAL 7.2 MHz HC-49/U	009-607200-000	1
<b>INTEGRATED CIRCUITS</b>			
IC401	ICRDS TA2099N (TOSHIBA) (87-A21-173-01)	010-832099-000	1
IC402	ICPLL TC9257F	010-849257-000	1
<b>DIODES</b>			
VD401,402	VARI CAP DIODE 1SV149B,TOSHIBA	011-000149-000	2
D401,402,403,404	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH	011-004148-000	4
<b>INDUCTORS</b>			
T408,409	IFT 7PF022C 7.8mm BLACK	012-000022-078	2
T405	IFT 7M4A1772R 7.5mm YELLOW 012-001720-075	012-001772-075	1
T403	IFT 7M1A1959R 7.5mm RED 012-001905-075	012-001959-075	1
T401	IFT 7M1A1961R 7.5mm BLACK 012-001950-075	012-001961-075	1
<b>INDUCTORS</b>			
L401,403	*CdF INDUCTOR 100 uH /1128/CEC-101K +-10% LAL03 TB 101K	018-010014-000	2
<b>FILTERS</b>			
CF401,402	CERAMIC FILTER SFE10.7MS3-A	019-000107-006	2
CF404	CERAMIC FILTER CDA10.7MG82-A	019-000107-028	1
CF403	(F019-000450-002) CERAMIC FILTER LTU450G2	019-000450-012	1
<b>WIRES</b>			
WH401 TO WH304	HSG CD170-108 10PINS JST PHR-2mm w/110mm R,BK,W,Y,BL,OR,R,BK,W,Y AWG28#1095 4mm	136-100170-000	1
WH401 TO WH305	HSG (2mm) PEC 2001H-03 TO 2003H-03 w/225mm SHIELD WIRE AWG28#UL2547/2C RED,WHITE	136-F10322-500	1
<b>MISCELLANEOUS</b>			
	TUNER-FM&&00STATION FM FRONT END TUNER PET-3010F/H (EU) (TAE BONG)	042-103010-000	1
	JACK COAXIAL JACK HTR-401V	118-030401-000	1
JK401	HEADER MOLEX 2 PINS 5268-02A PITCH 2.5mm HORIZONTAL TYPE	135-005268-020	1
<b>CENTER SPEAKER PORTION - SSQC3</b>			
	JP WIRE AWG22#1007 5x5mm 130mm RED	051-275130-006	1
	JP WIRE AWG22#1007 5x5mm 130mm BLACK	051-275130-009	1
	PUSH TERMINAL BOARD PT-213-03 BLACK,RED	118-000213-000	1
	MSP-105H-03 BLACK,RED		
FOR CT	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm	122-002120-401	1
	TRANS. w/BK LINE 4M w/TUBE 2xRED,BLK,BRN		
	SPK00003*0080HMO050W w/BK DOME PAPER CAP #LF77SZ4307G55C8AS19PDB (GGEC)(L0234)	131-308050-010	1
<b>ACTIVE SUB-WOOFER PORTION - SWT1A</b>			
<b>OUTPUT TERMINAL PORTION</b>			
<b>RESISTORS</b>			

## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
R880,881,882	*CdF RESISTOR 10 ohm +-5% 1/16W (1/8W)	001-010051-016	3
R1003	*CdF RESISTOR 100 ohm +-5% 1/16W (1/8W)	001-010151-016	1
R877	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	1
R875	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	1
R876	*CdF RESISTOR 3.3 Kohm +-5% 1/16W (1/8W)	001-033251-016	1
R873,874	*CdF RESISTOR 47 Kohm +-5% 1/16W (1/8W)	001-047351-016	2
R871	RESISTOR 56 Kohm +-5% 1/16W (1/8W)	001-056351-016	1
<b>CAPACITORS</b>			
C996	(F003-010380-025) CERAMIC CAP 0.01 uF/ 50V +80%-20%	003-010380-050	1
C998	ELECT CAP 1000 MFD/16V +-20% (10x20)	006-010200-16D	1
<b>TRANSISTORS</b>			
Q871,875	TRLNPN SST-TAP&TO-092 3DG1815	008-618150-000	2
Q872	TRLNPN PWR-TAP&TO-092 3CA8550	008-685500-000	1
<b>DIODES</b>			
D913,915,916	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)NS(FAIRCHILD)/SEMTECH	011-004148-000	3
D914	RECTIFIER IN-4001B	011-024001-000	1
<b>MISCELLANEOUS</b>			
JK601,603	4 P PUSH TERMINAL BOARD HSP-354V-03 A,B-RED C,D-BLACK (STS5x/STS6x)	118-000354-000	2
JK602	EXT SP JACK HSP-102V-01 A-RED,B-BLACK (PUSH TERMINAL BOARD)	118-040102-000	1
JK604	MINI DIN SOCKET MDL-09SC0A (LEOCO)	119-000090-000	1
RL601,602,603	RELAY 12V OSA-SS-212DM5	128-122125-000	3
CN01	HEADER 2 PINS #TJ6-2A PITCH:3.96mm VERTICAL 1.14mm AQUIRE PIN	135-000TJ6-020	1
CN02	HEADER MOLEX 2 PINS 5267-02A PITCH 2.5mm STRAIGHT TYPE	135-005267-020	1
<b>POWER AF PORTION</b>			
<b>RESISTORS</b>			
R680,905,915	RESISTOR 100 ohm +-5%, 1/4W	001-010150-014	3
R632,661,664 ,665,919,1015,1016	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	7
R657,663,687,920	*CdF RESISTOR 100 Kohm +-5% 1/16W (1/8W)	001-010451-016	4
R614,616,631,633,634,907	RESISTOR 1.8 Kohm, +-5%, 1/16W (1/8W)	001-018251-016	6
R924	*CdF RESISTOR 2.2 Kohm +-5% 1/16W (1/8W)	001-022251-016	1
R662	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	1
R610,619,622,627,639,912	(F001-022951-001) RESISTOR 0.22 ohm +-5% 1W (METAL FILM)	001-022952-001	6
R1001	RESISTOR 3.3 Kohm +-5% 1/2W	001-033250-012	1
R605,606,666,671,672,673,689, 903,909,910	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	10
R602,604,675,677,679,682,683, 684,685,686,902,921	*CdF RESISTOR 47 Kohm +-5% 1/16W (1/8W)	001-047351-016	12
R640,642,643,644,645,646,647, 648,649,650,914,917	RESISTOR 4.7 ohm +-5% 1/2W	001-047850-012	12
R641,681	RESISTOR 56 ohm +-5% 1/4W	001-056050-014	2
R658	RESISTOR 5.6 Kohm +-5% 1/16W (1/8W)	001-056251-016	1
R607,611,612,613,615,617,621, 625,629,630,635,636,668,669, 670,901,906,908,916	RESISTOR 56 Kohm +-5% 1/16W (1/8W)	001-056351-016	19
R608,609,618,620,623,624,626, 628,637,638,659,913,918	*CdF RESISTOR 6.8 Kohm +-5% 1/16W (1/8W)	001-068251-016	13
R652,653,654,655,656,923	*CdF RESISTOR 82 Kohm +-5% 1/16W (1/8W)	001-082351-016	6
<b>CAPACITORS</b>			

## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
C605,606,617,619,621	CERAMIC CAP 220 pF/50V +-10%	003-022110-050	5
C601,602,636,637,638,903	CERAMIC CAP 470 pF/50V +-5% (88-211-550-81C)	003-047150-050	6
C916	SEMI-COND 0.022 uF/25V +-10%	003-322310-025	1
C607,610,615,616,623,906	CERAMIC CAP 3 pF/50V +-0.25pF (NPO) (CC45-CH1H030C/RBU04CH030C-L)	003-430830-050	6
C625,626,627,628,629,911	#MYLAR CAP 0.1 uF/50V +-10%	004-010410-050	6
C603,604,633,634,635	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	5
C630,631,902	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	3
C613,614,624,905	ELECT CAP 100 MFD/35V +-20% (8x11.5)	006-010100-35D	4
C907	ELECT CAP 1000 MFD/16V +-20% (10x20)	006-010200-16D	1
C632,917	ELECT CAP 22 MFD/25V +-20% (5x11)	006-022000-25D	2
C909,910	(F006-022200-35D) ELECT CAP 2200 MFD/ 35V +-20% (VX/16x31.5)	006-022200-35C	2
C611,612	ELECT CAP 3300 MFD/35V +-20% (18x35)	006-033200-35D	2
C608,609,618,620,622,904	*CdF ELECT CAP 47 MFD/16V +-20% (5x11)	006-047000-16D	6
C908	ELECT CAP 47 MFD/50V +-20% (87-010408-08J)	006-047000-50C	1
<b>TRANSISTORS</b>			
Q611	TR PNPSST-RAD&TO-092 3CG733P (2SA733P)	008-600733-000	1
Q607	TR NPNSST-RAD&TO-092 3DG945P (2SC945P)	008-600945-000	1
Q603,604,605,606,608,610,615, 902	TRLNPN SST-TAP&TO-092 3CG1015	008-610150-000	9
Q601,602,609,616,617,618,901	TRLNPN SST-TAP&TO-092 3DG1815	008-618150-000	7
Q614	TRLNPN PWR-TAP&TO-092 3DA8050	008-680500-000	1
Q612	TR NPNSST-RAD&SC-072 DTC114ES (ROHM)	008-801141-000	1
<b>INTEGRATED CIRCUITS</b>			
IC601	ICAMP-POWR-&&-00020W STK402-930 (SANYO) (5 CHANNELS AF)	010-550402-001	1
IC901	ICAMP-POWR-&&-00040W STK404-070 (1 CHANNEL AF)	010-550404-000	1
<b>DIODES</b>			
D601,602,603,604,605,607,901, 906	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50 KEL(NS)(TAP:52mm)NS(FAIRCHILD)/SEMTECH	011-004148-000	8
ZD901	ZENER DIODE MTZJT-72-12B 12V 1/2W (TSB#G51421015104)	011-010012-120	1
<b>INDUCTORS</b>			
L601,602,603,604,605,901	FM COIL 24.5T 4mm/4.0x24.5Tx0.7 RED DIA:0.7mm #CS47-868793/F192829	015-245040-007	6
<b>MISCELLANEOUS</b>			
	DIN COAXIAL CABLE #2464 9C+1 DIA:10mm L=5M UL2464-SB 9Cx26AWG (9 PIN)	122-004020-500	1
	SPK006.5"004OHM0120W w/BK DOME PAPER CAP #SW165RZ5802G100F4AS36PFB (L0257)	131-6540A0-010	1
<b>PRE AF PORTION</b>			
<b>RESISTORS</b>			
R850,861,862,863,864	*CdF RESISTOR 10 Kohm +-5% 1/16W (1/8W)	001-010351-016	5
R961,962,969,970,976,977	*CdF RESISTOR 100 Kohm +-5% 1/16W (1/8W)	001-010451-016	6
R959,964,967,972,974	*CdF RESISTOR 12 Kohm +-5% 1/16W (1/8W)	001-012351-016	5
R983	*CdF RESISTOR 15 Kohm +-5% 1/16W (1/8W)	001-015351-016	1
R852,854,965,966,973,980,985, 986,991,992	*CdF RESISTOR 220 ohm +-5% 1/16W (1/8W)	001-022151-016	10
R951,952,953,954,955,956,978, 999	*CdF RESISTOR 2.2 Kohm +-5% 1/16W (1/8W)	001-022251-016	8
R981	*CdF RESISTOR 22 Kohm +-5% 1/16W (1/8W)	001-022351-016	1
R960,963,968,971,975,993,994, 995,996,997,998	*CdF RESISTOR 4.7 Kohm +-5% 1/16W (1/8W)	001-047251-016	11


## ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
R984,982	RESISTOR 68K +5% 1/16W (1/8W)	001-068351-016	2
R950,958,987,988,989,990	RESISTOR 8.2 Kohm +5% 1/16W (1/8W)	001-082251-016	6
R979	*CdF RESISTOR 82 Kohm +5% 1/16W (1/8W)	001-082351-016	1
<b>CAPACITORS</b>			
C959,960,963,964,966	CERAMIC CAP 100 pF/50V +-10%	003-010110-050	5
C981,982,983,984,985,986	CERAMIC CAP 220 pF/50V +-10%	003-022110-050	6
C990,991,992,993,994,995	CERAMIC CAP 30 pF/50V +-10%	003-030010-050	6
C997	CERAMIC CAP 0.04 uF/50V +80-20%	003-040380-050	1
C967	SEMI-COND 0.0056 uF/25V +-10% Y5P	003-356210-025	1
C973	#MYLAR CAP 0.012 uF/100V +-10%	004-012310-100	1
C972	#MYLAR CAP 0.068 uF/100V +-10%	004-068310-100	1
C969,970	ELECT CAP 0.47 MFD/50V +-20% (5x11)	006-000400-50D	2
C951,952,953,954,955,956,957,958,975,976,977	ELECT CAP 1 MFD/50V +-20% (5x11)	006-001000-50D	11
C941,978	ELECT CAP 10 MFD/50V +-20% (5x11)	006-010000-50D	2
C872,875	ELECT CAP 100 MFD/16V +-20% (5x11)	006-010100-16D	2
C961,962,965,968,971,974,979,980	ELECT CAP 220 MFD/16V +-20% (8x11.5)	006-022100-16D	8
C871,874	ELECT CAP 220 MFD/25V +-20% (8x11.5)	006-022100-25D	2
C873,876	ELECT CAP 470 MFD/25V +-20% (10x16)	006-047100-25D	2
<b>TRANSISTORS</b>			
Q851	TRLNPNPWR-TAP&TO-092 3DA8050	008-680500-000	1
Q802	TRLNPNPWR-TAP&TO-092 3CA8550	008-685500-000	1
<b>INTEGRATED CIRCUITS</b>			
IC951,952,953,954	IC BA4558N O.AMP	010-404558-000	4
<b>DIODES</b>			
D909	DIODE IN-4148 ROHM/TELEFUNKEN TAP**50	011-004148-000	1
ZD851,852	KEL(NS)(TAP:52mm)/NS(FAIRCHILD)/SEMTECH ZENER DIODE MTZJT-72-12B 12V 1/2W (TSB#G51421015104)	011-010012-120	2
D910,911	RECTIFIER IN-4001B	011-024001-000	2
<b>WIRE</b>			
A TO A'	JP WIRE AWG26#1007 5x5mm 60mm BLACK	051-675060-009	1
<b>RECTIFIER PORTION</b>			
<b>RESISTOR</b>			
R859	*CdF RESISTOR 100 ohm +-5% 1/16W (1/8W)	001-010151-016	1
<b>CAPACITORS</b>			
C861,862,863,864,867,868,869,870	(F003-010380-025) CERAMIC CAP 0.01 uF/50V +80%-20%	003-010380-050	8
C879,880	ELECT CAP 100 MFD/50V +-20% (8x11.5)	006-010100-50D	2
C877,878	ELECT CAP 1000 MFD/25V +-20% (12.5x20)	006-010200-25D	2
<b>DIODES</b>			
D855,856,857,858	RECTIFIER 10A1 10A 100V (GW)	011-020010-990	4
D851,852,853,854,859	RECTIFIER IN-4001B	011-024001-000	5
<b>WIRES</b>			
CN809 TO CN812	JP WIRE AWG22#1015 5x5mm 300mm RED	051-255300-006	2
CN813 TO CN01	JP WIRE AWG22#1015 5x5mm 300mm WHITE	051-255300-008	2
<b>MISCELLANEOUS</b>			
LED101	LED-R-3MM&S-8&8&8 SE-3001DT 3mm BRIG.RED 28mm LEAD w/REFL. (8C-CS8-619-01) PT300WEI76/56&F&BVDE 230V:24V/24V/13V/ 13V w/FUSE 130°C (L7656-G01E)	110-030010-003	1
FUSE1,2	FUSE #S506 1.6A/250V 5x20mm TIME LAG. (CUL/SEMKO/VDE/BSI APP.)	123-F53551-400	1
RL806	RELAY 9V SDT-S-109LMR	124-016020-000	2
		128-090109-000	1

## ELECTRICAL PARTS LIST - CONTINUED

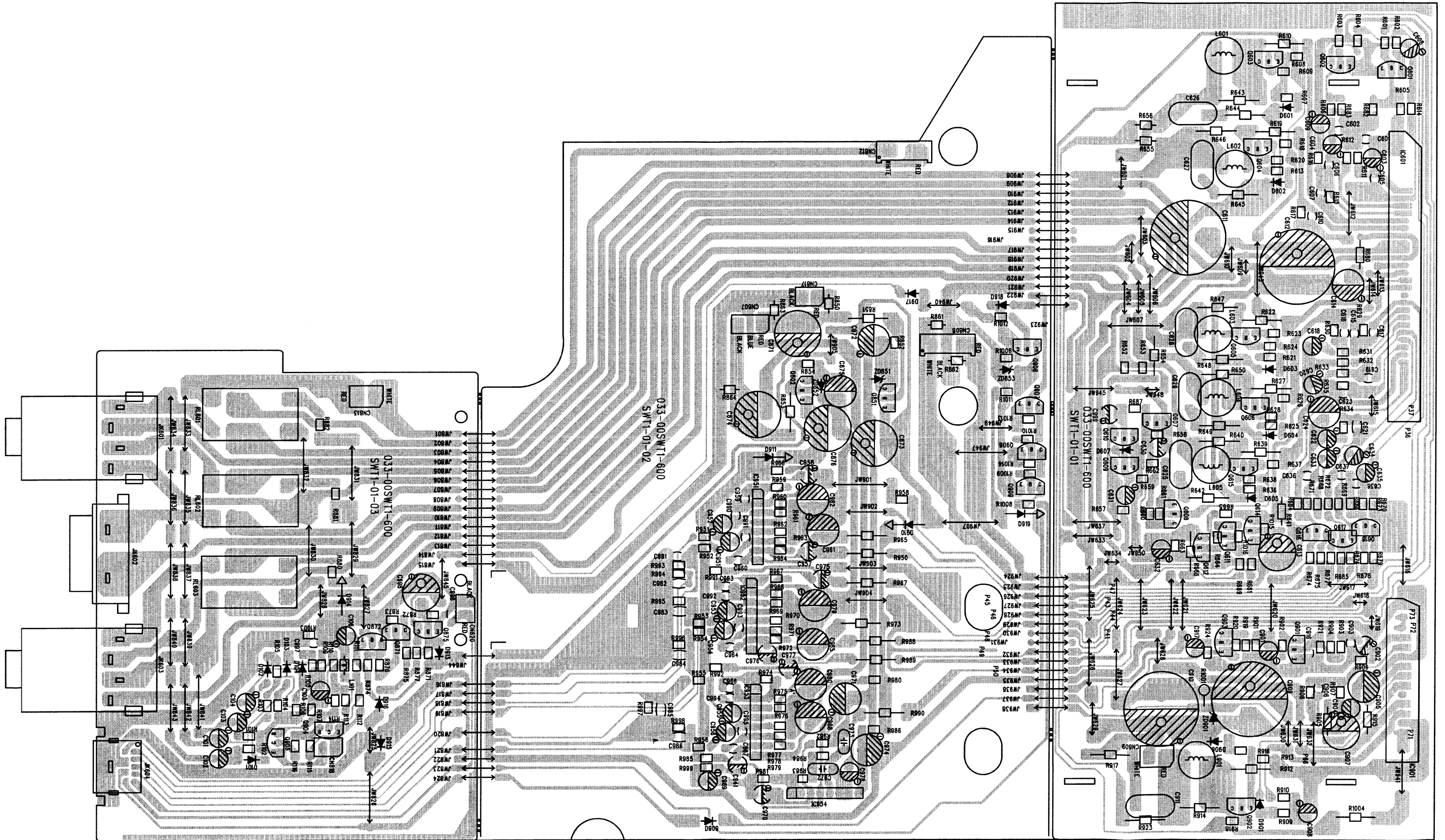
Ref. No.	Description	Mfr's Part No.	Qty.
FUSE3,4	FUSE #218008 8A/250V 5x20mm TIME-LAG (UL/CSA) (WANTON)	124-080020-001	2
CN805	PLA-ULN-705*-VDE-MG VDE APP.CORD 2250mm MIGRATION (HARVEST)	134-B11331-006	1
CN814,817	HEADER JMT 3 PINS JM2422-3 PITCH:3.96mm HEADER 2 PINS PEC #2507-WS-2 PITCH 2.5mm	135-002422-030	1
CN806	VERTICAL REPLACE:135-005267-020 HEADER 3 PINS PEC #2507-WS-3 PITCH 2.5mm VERTICAL REPLACE:135-005267-030	135-2507WS-020	2
		135-2507WS-030	1
<b>WIRES</b>			
CN817 TO A.B	HSG CD228-2A MOLEX 5264 w/300mm RED,BLK	136-020228-250	2
CN814 TO CN820	AWG26#1007 UL JP SLDG.4mm		
CN02 TO LED101	HSG CD363-2C PIN MOLEX5264 2.5mm w/600mm RED,BLK JP AWG26#1007 SLDG 4mm	136-020363-251	1
CN806 TO CN807	HSG AS162-3 MOLEX 5264 WITH 220mm RED, BLUE,BLACK AWG26#1007 JP SLDG 5mm	136-030162-000	1
CN805 TO CN808	HSG CD2775-3B JMT JP2422-3 w/230mm RED,BLACK,WHITE AWG22#UL1007 SLDG.4mm	136-032775-390	1
CN01 TO SP	HSG (3.96mm) YS TJC6-2Y w/600mm RED,BLACK AWG18#UL1007 SLDG.10mm	136-MZ0260-000	1
<b>4-SPEAKER PORTION - SSQ3</b>			
	JP WIRE AWG22#1007 5x5mm 130mm RED	051-275130-006	4
	JP WIRE AWG22#1007 5x5mm 130mm BLACK	051-275130-009	4
	PUSH TERMINAL BOARD PT-213-03 BLACK,RED	118-000213-000	4
FOR FR	MSP-105H-03 BLACK,RED SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm TRANS.w/BK LINE 4M w/TUBE 2xRED,BLK,YEL	122-002120-402	1
FOR FL	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm TRANS.w/BK LINE 4M w/TUBE 2xRED,BLK,BLUE	122-002120-403	1
FOR SR	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm TRANS.w/BK LINE 10M w/TUBE 2xRED,BLK,GRN	122-002121-003	1
FOR SL	SPK WIRE UL/CSA 2468 2x22 AWG 17/0.16mm TRANS.w/BK LINE 10M w/TUBE 2xRED,BLK,ORN	122-002121-004	1
	SPK00003*0080HMO050W w/BK DOME PAPER CAP #LF77SZ4307G55C8AS19PDB (GGEC)(L0234)	131-308050-010	4

### NOTES:

1. " # " Mylar is a registered trademark of E.I. Du Pont de Nemours and Company.
2.  Symbol in parts list represent safety parts.



**PRINTED CIRCUIT BOARDS**  
**POWER AMPLIFIER PCB**  
**SWT1-01-01,02,03**

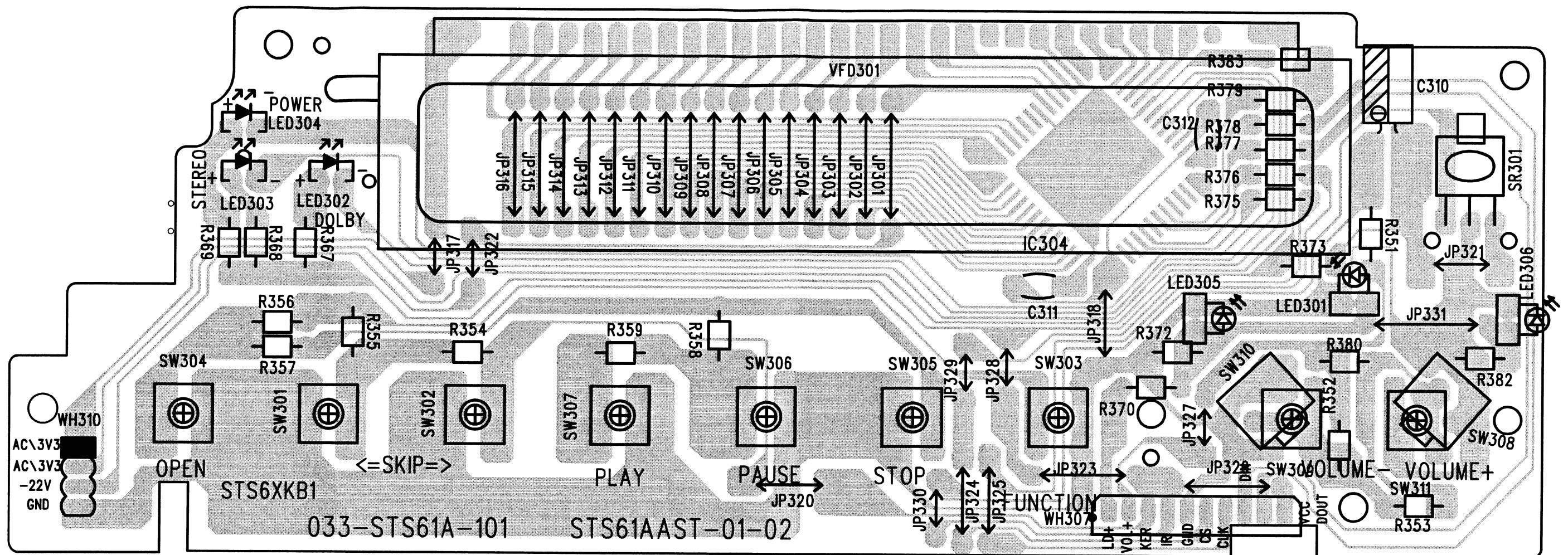


**NOTES:**

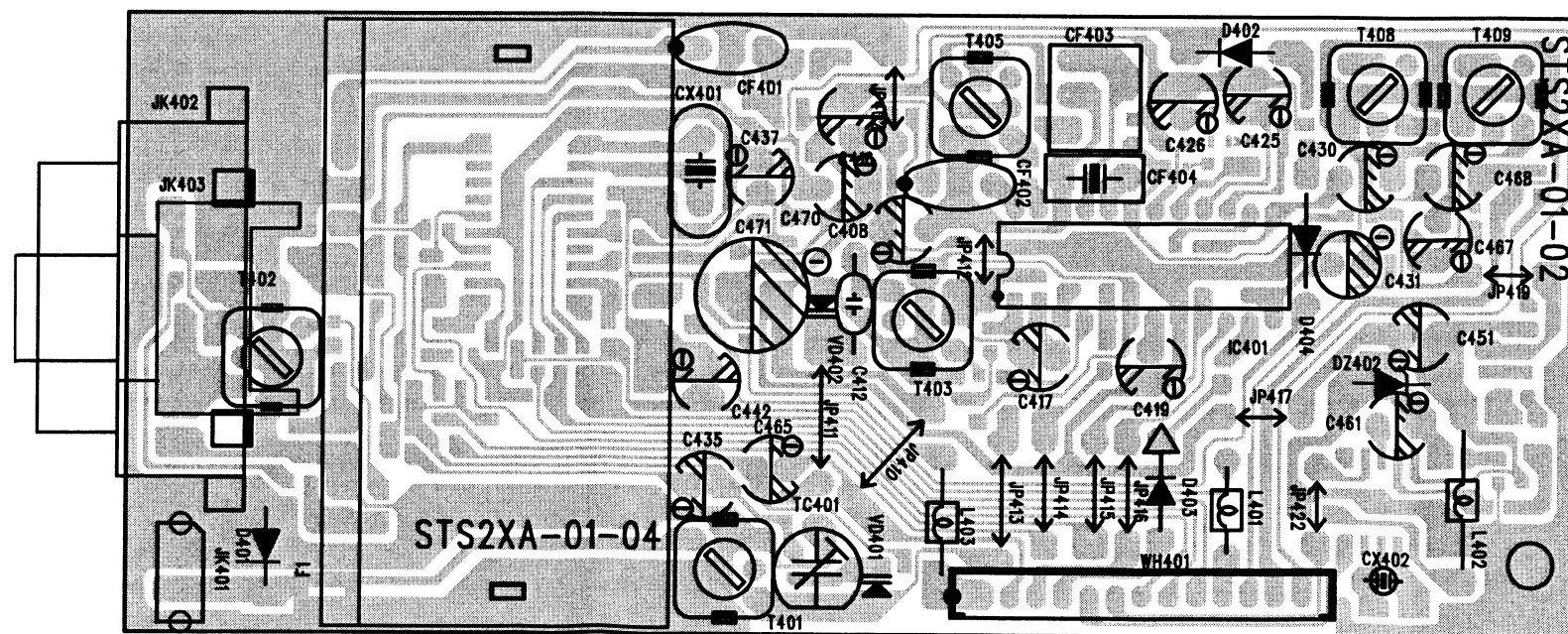
PCB Part No.: 033-00STW1-600 of this model are assembled and aligned in FULL SET and are supplied in FULL SET for serving.



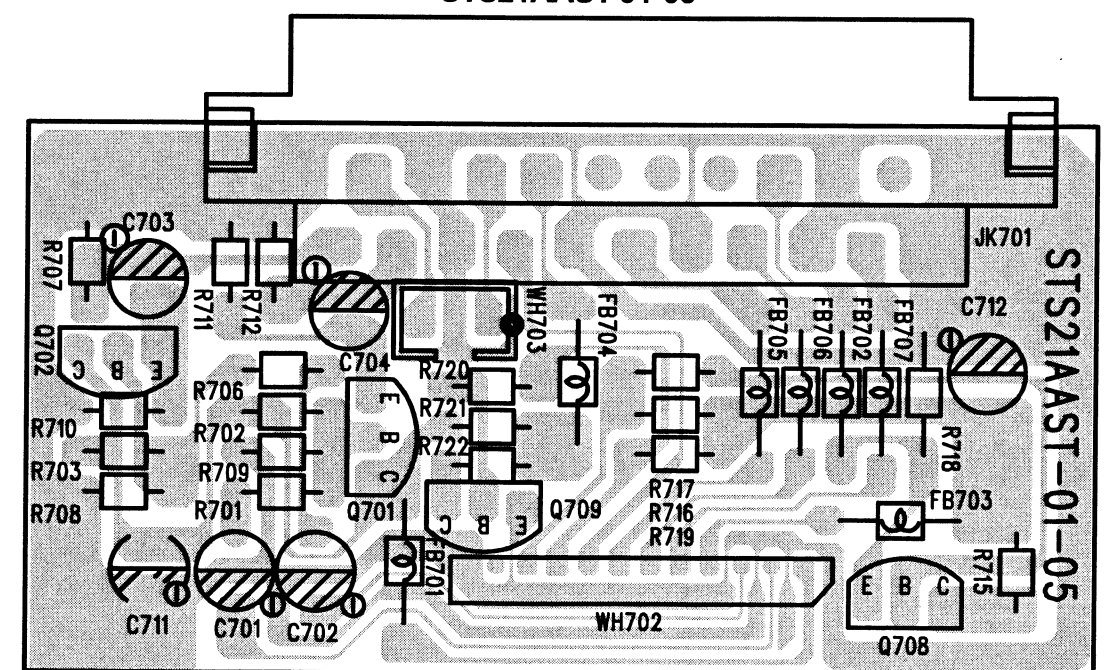
DISPLAY & KEY PCB  
STS61AAST-01-02



TUNER PCB  
STS21AAST-01-04



SCART PCB  
STS21AAST-01-05

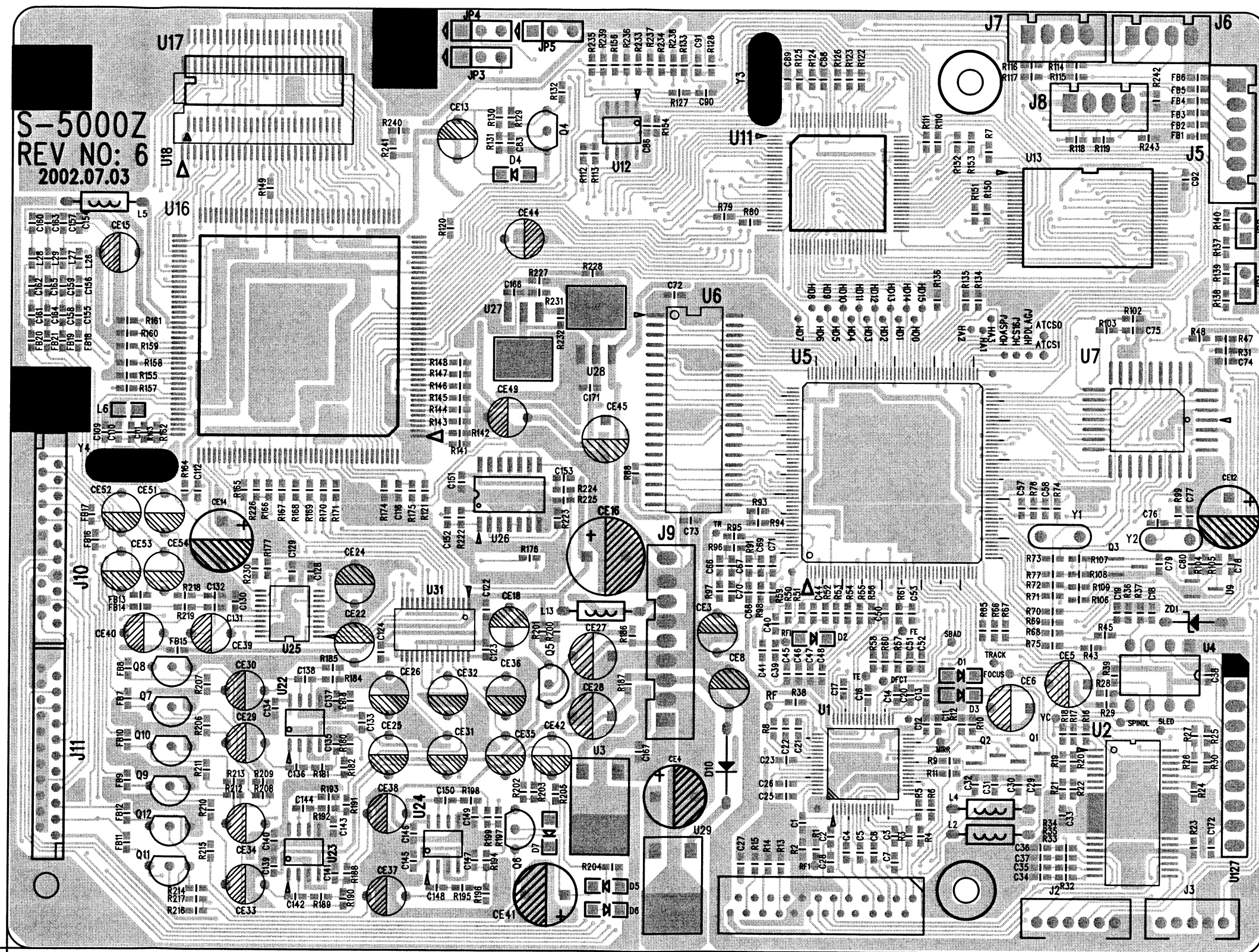








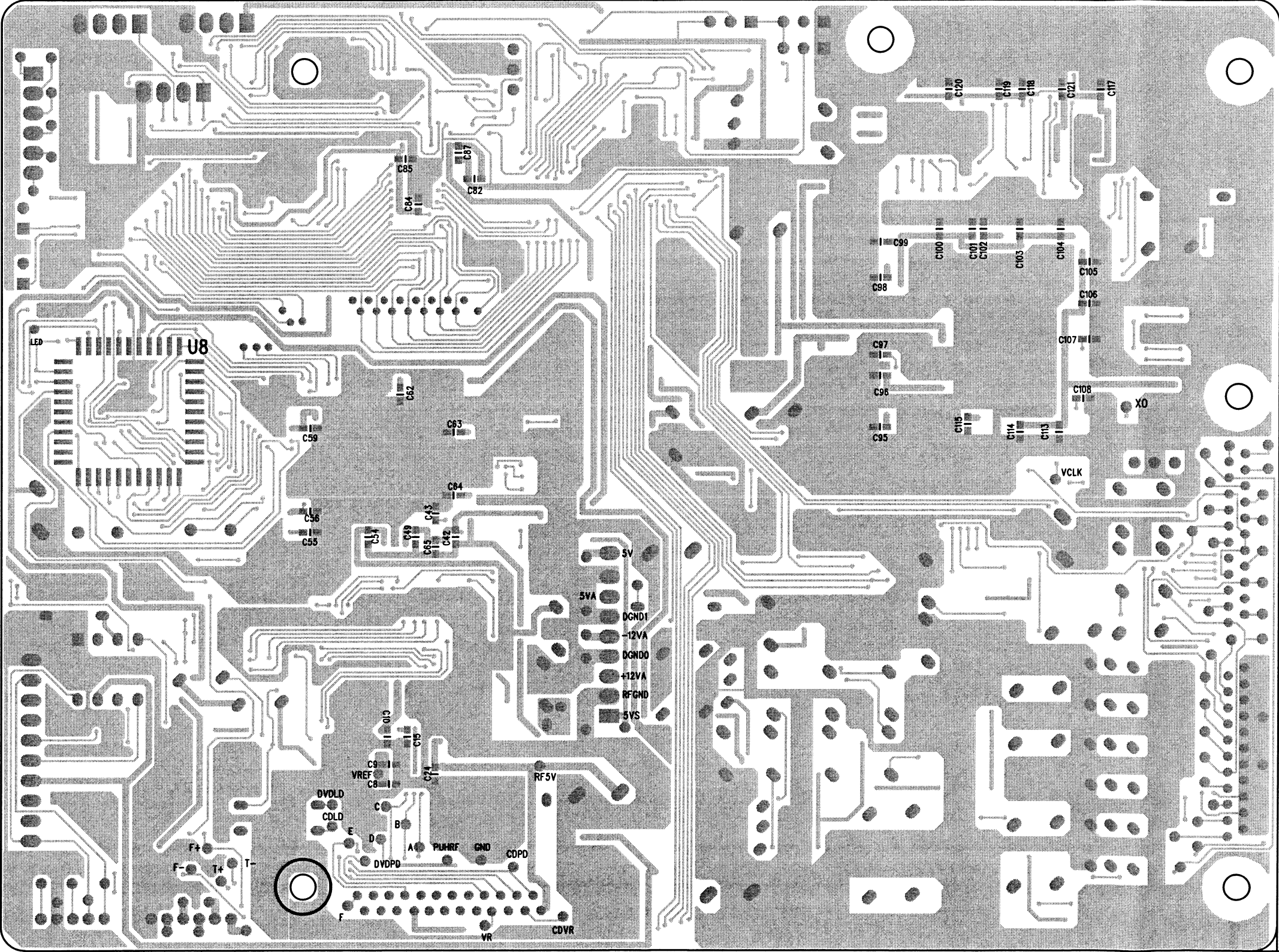
MPEG+SERVO PCB  
STS21AAS-01-02



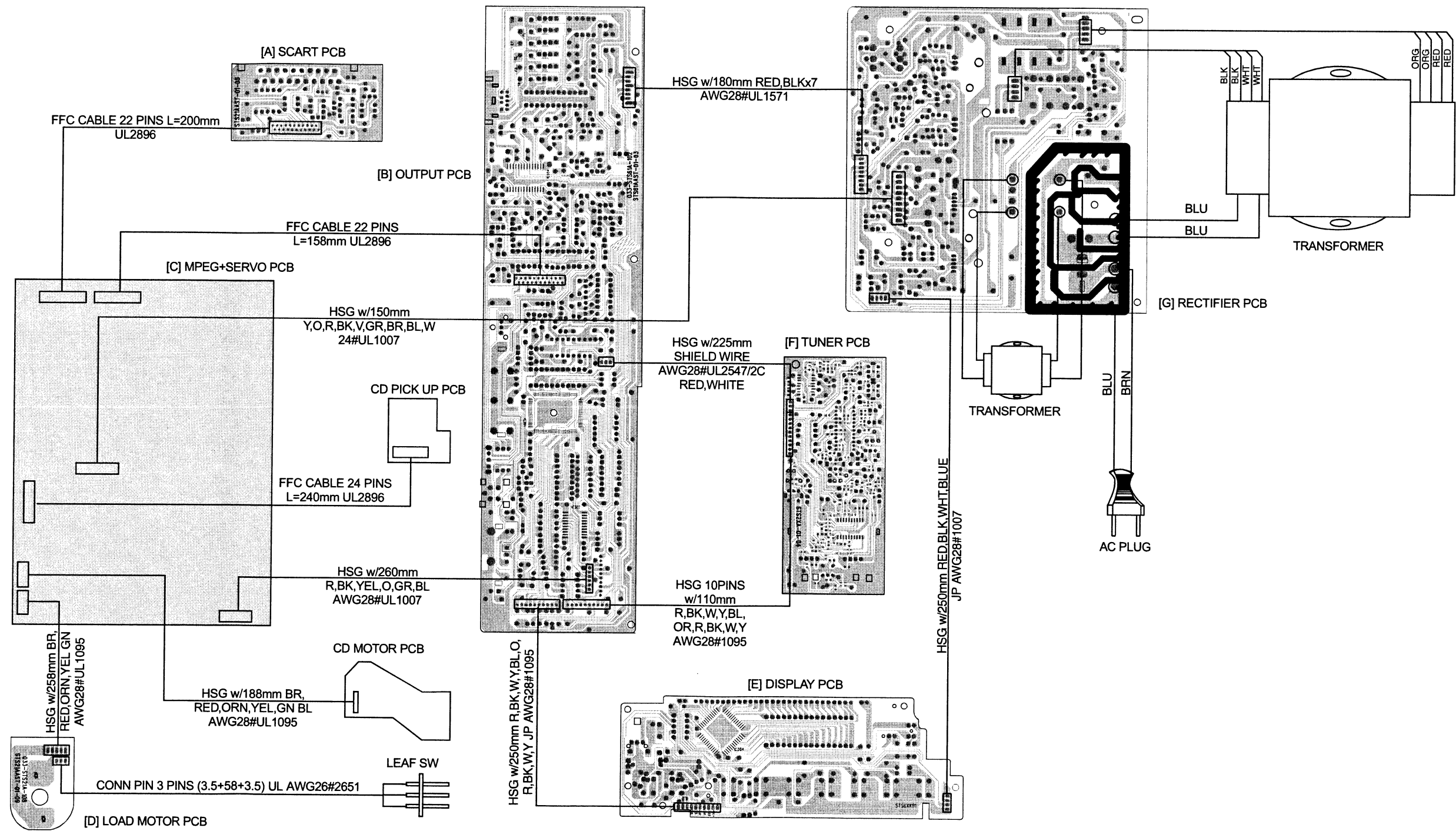
TOP VIEW



MPEG+SERVO PCB  
STS21AAS-01-02

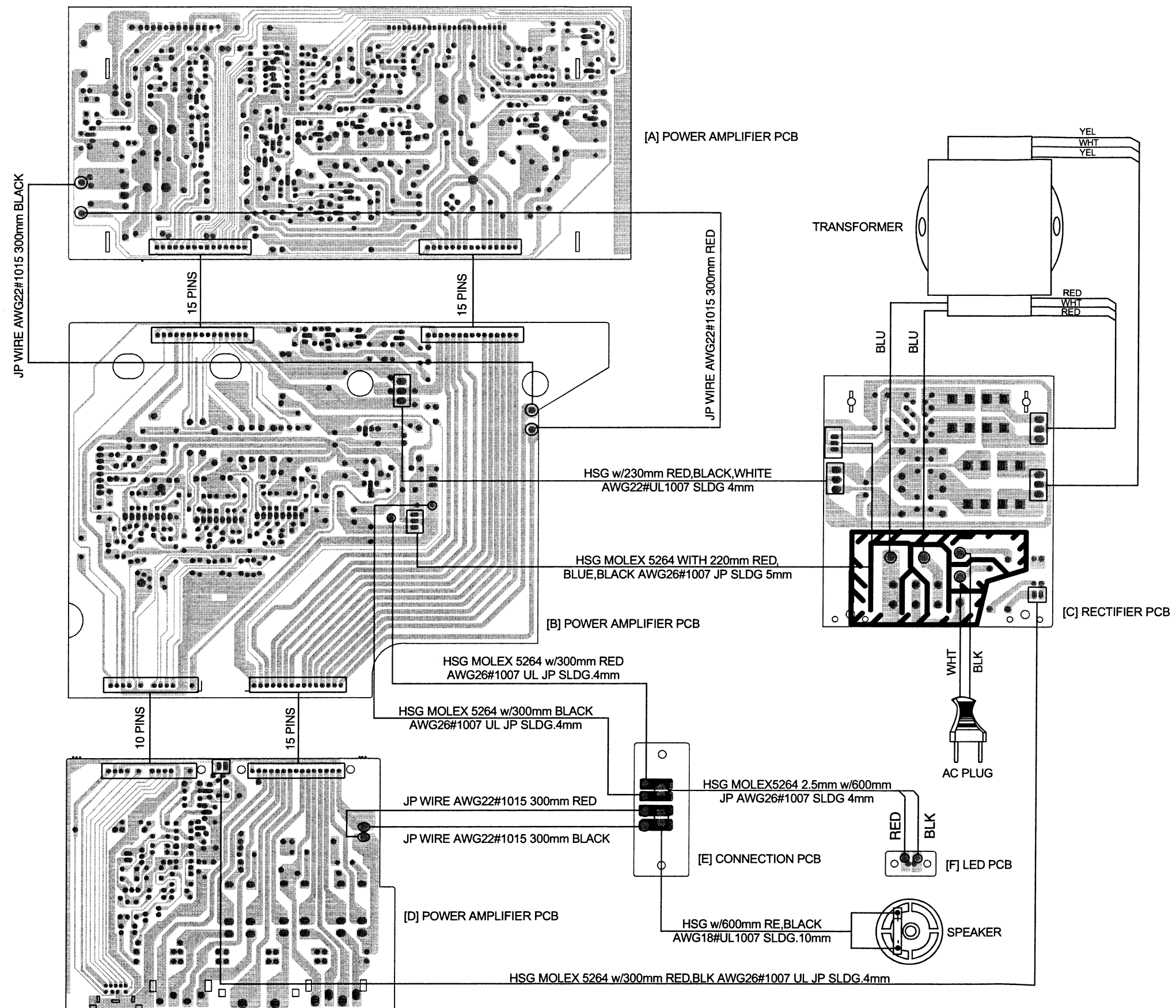


BOTTOM VIEW



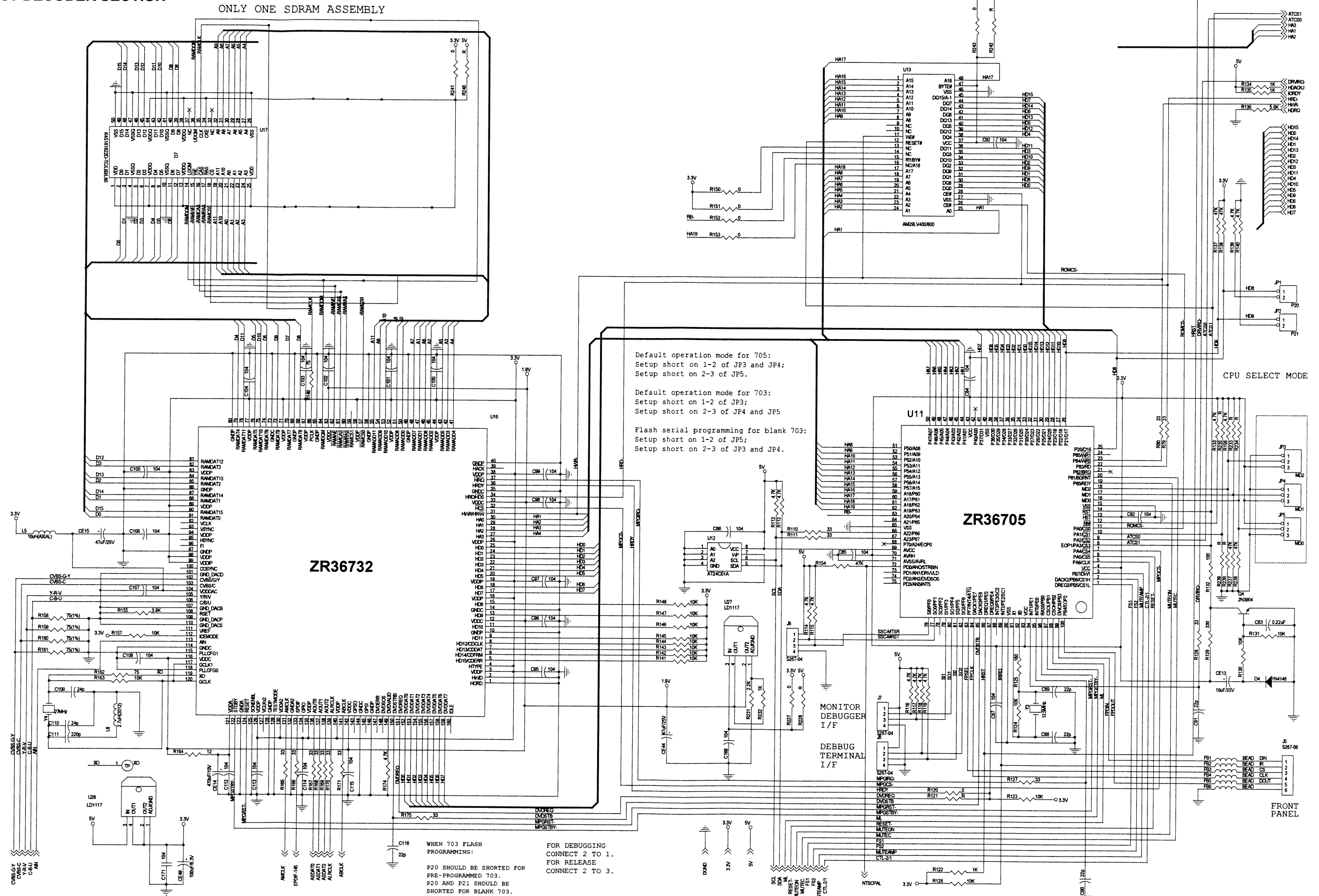


SUB-WOOFER SECTION



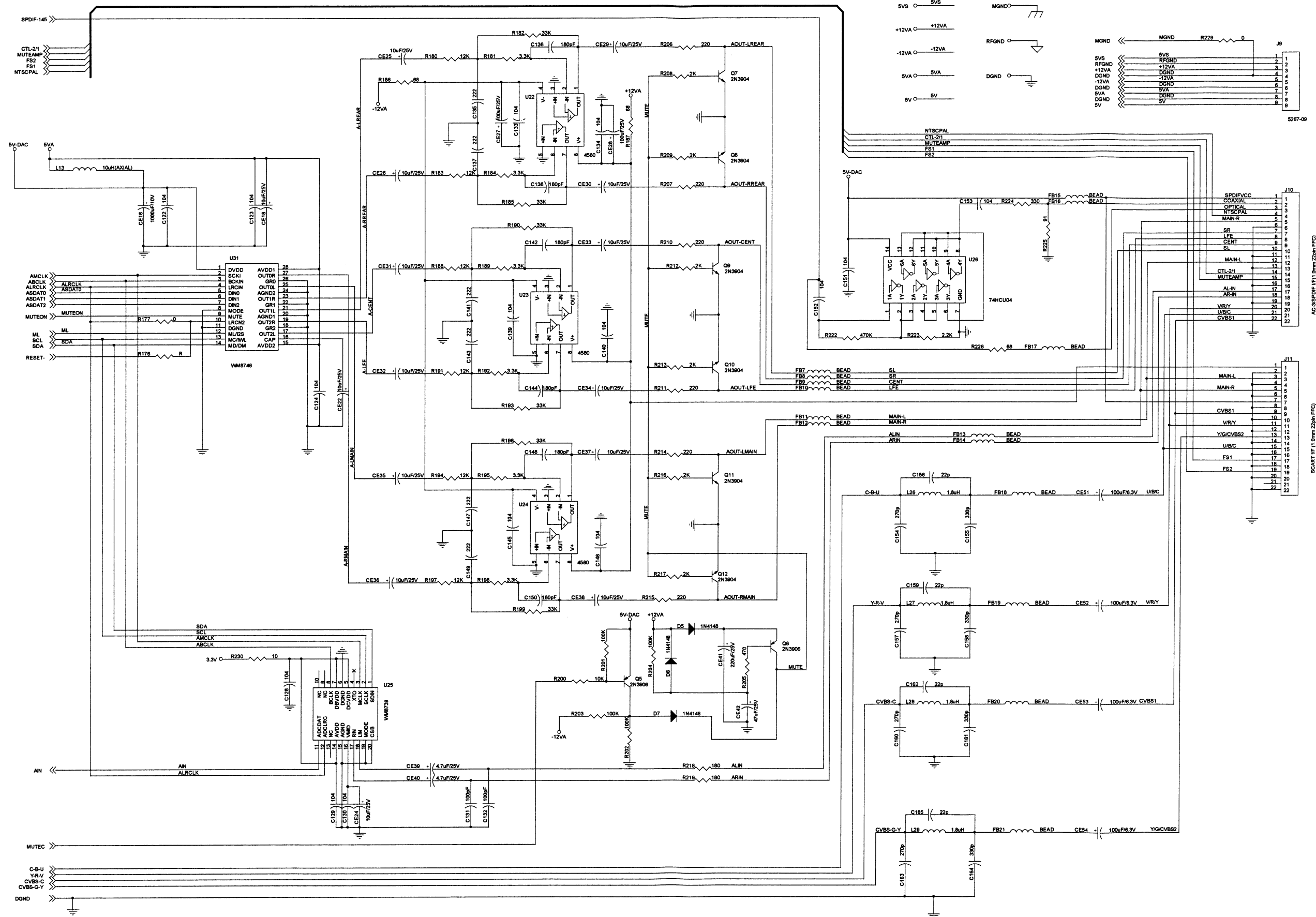
## AV DECODER SECTION

## SCHEMATIC DIAGRAMS





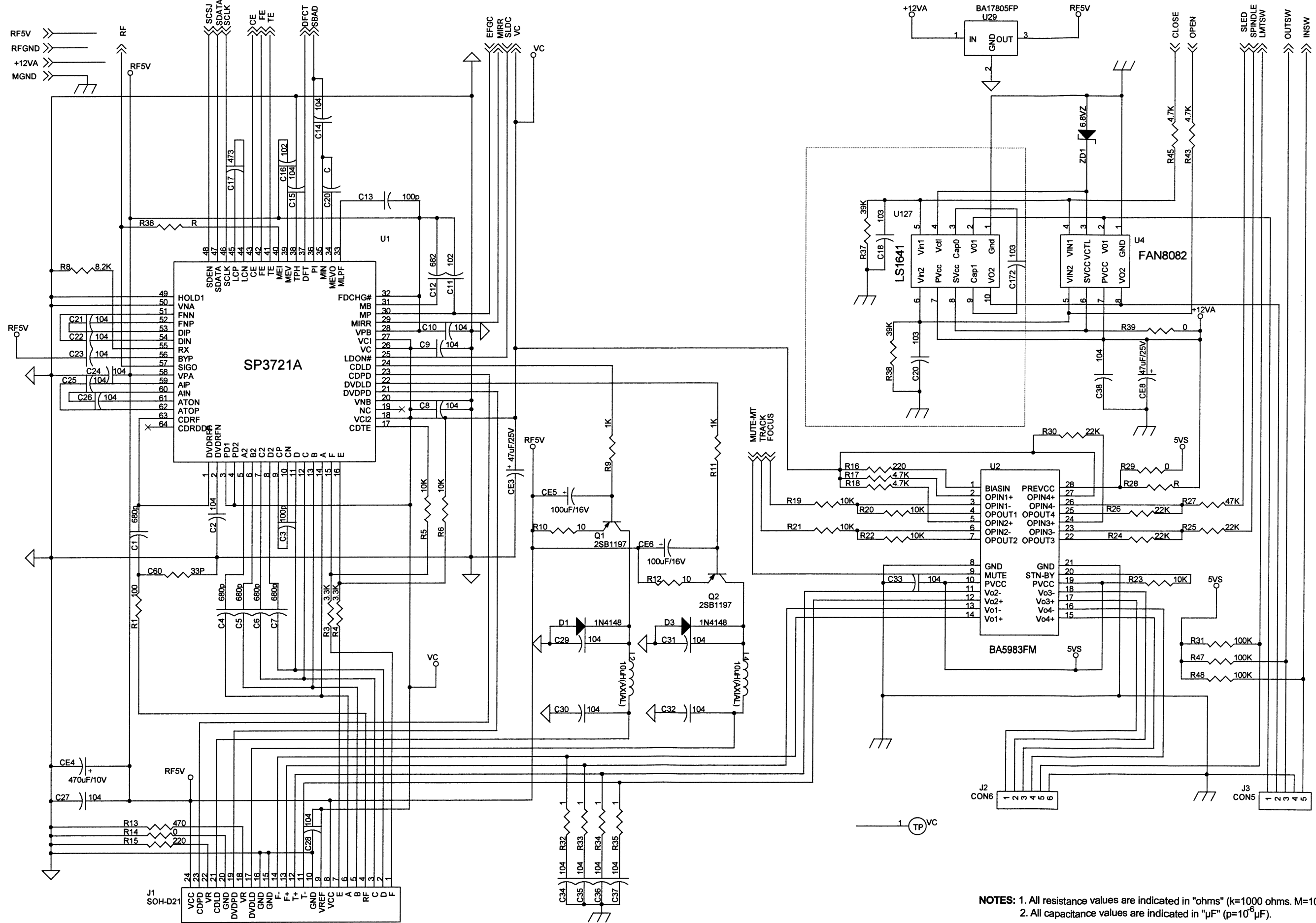
## AV OUTPUT SECTION



**NOTES:** 1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 Kohms).  
2. All capacitance values are indicated in " $\mu$ F" ( $p=10^{-6}$   $\mu$ F).

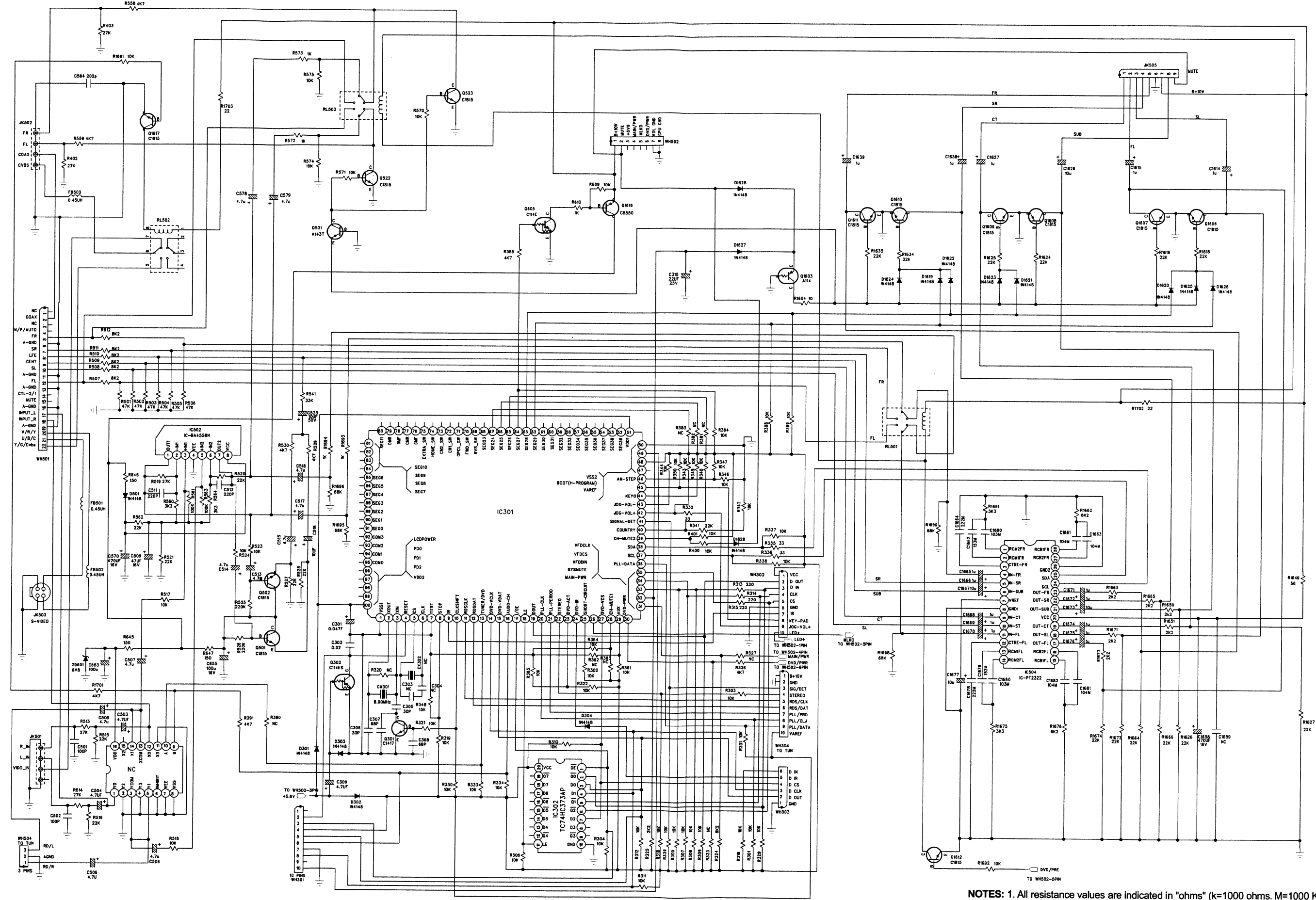
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## PREAMP & MOTOR DRIVER SECTION



**NOTES:** 1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 Kohms).  
2. All capacitance values are indicated in " $\mu$ F" ( $p=10^{-6}$   $\mu$ F).

CPU SECTION



NOTES: 1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 Kohms).  
2. All capacitance values are indicated in "µF" (p=10<sup>-6</sup>µF).

**Pinout Table:**

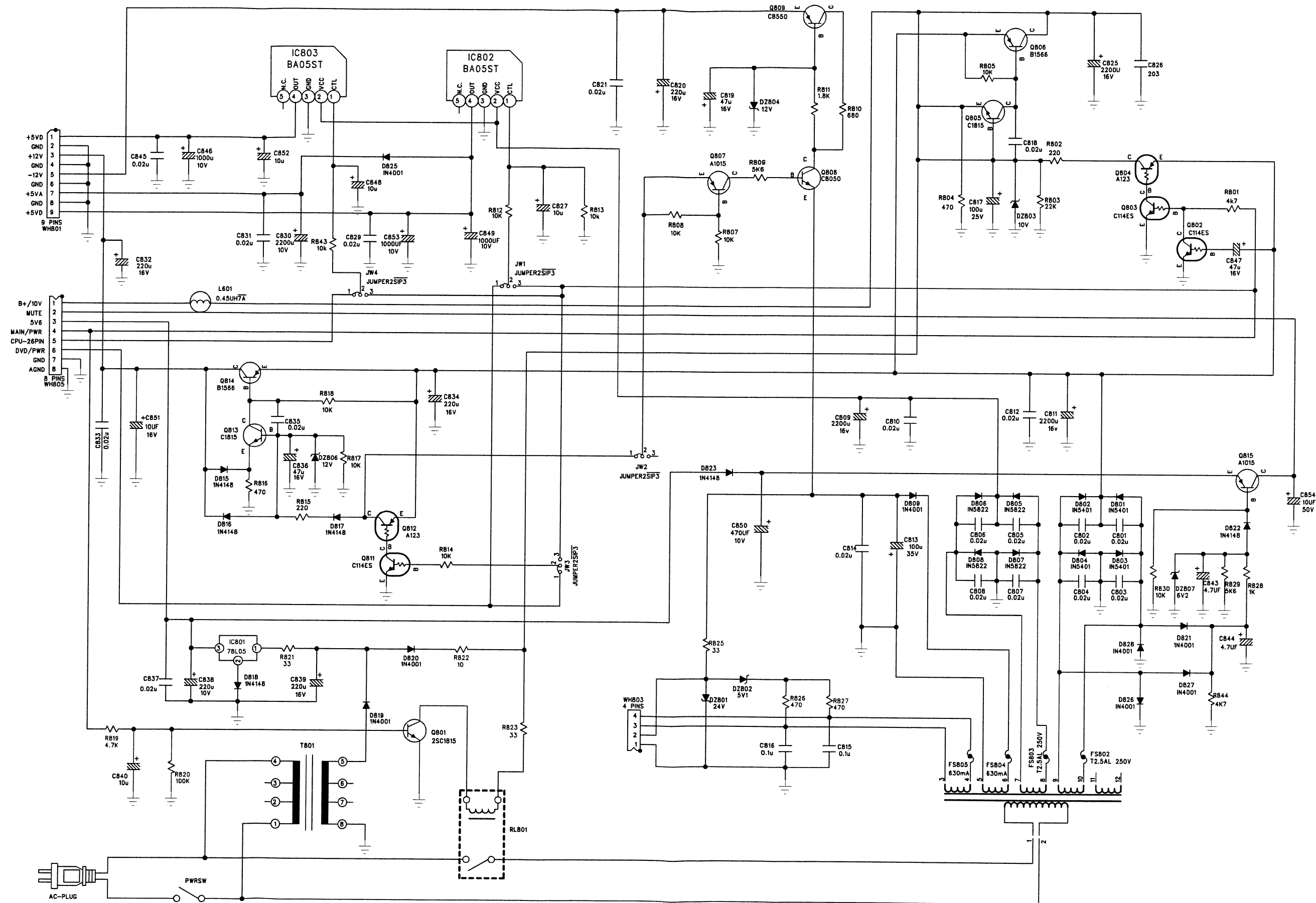
Pin	Function
1	VT+12V
2	TUNER+B
3	PRD
4	CLK
5	DATA
6	R DATA
7	R CLK
8	S-DET
9	STERO

**Component List:**

- IC1: FM-FTZ1
- IC2: TC9257F
- IC3: BU1923F
- IC4: TA2099N
- IC5: TA2099N
- IC6: TA2099N
- IC7: TA2099N
- IC8: TA2099N
- IC9: TA2099N
- IC10: TA2099N
- IC11: TA2099N
- IC12: TA2099N
- IC13: TA2099N
- IC14: TA2099N
- IC15: TA2099N
- IC16: TA2099N
- IC17: TA2099N
- IC18: TA2099N
- IC19: TA2099N
- IC20: TA2099N
- IC21: TA2099N
- IC22: TA2099N
- IC23: TA2099N
- IC24: TA2099N
- IC25: TA2099N
- IC26: TA2099N
- IC27: TA2099N
- IC28: TA2099N
- IC29: TA2099N
- IC30: TA2099N
- IC31: TA2099N
- IC32: TA2099N
- IC33: TA2099N
- IC34: TA2099N
- IC35: TA2099N
- IC36: TA2099N
- IC37: TA2099N
- IC38: TA2099N
- IC39: TA2099N
- IC40: TA2099N
- IC41: TA2099N
- IC42: TA2099N
- IC43: TA2099N
- IC44: TA2099N
- IC45: TA2099N
- IC46: TA2099N
- IC47: TA2099N
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- IC49: TA2099N
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- IC63: TA2099N
- IC64: TA2099N
- IC65: TA2099N
- IC66: TA2099N
- IC67: TA2099N
- IC68: TA2099N
- IC69: TA2099N
- IC70: TA2099N
- IC71: TA2099N
- IC72: TA2099N
- IC73: TA2099N
- IC74: TA2099N
- IC75: TA2099N
- IC76: TA2099N
- IC77: TA2099N
- IC78: TA2099N
- IC79: TA2099N
- IC80: TA2099N
- IC81: TA2099N
- IC82: TA2099N
- IC83: TA2099N
- IC84: TA2099N
- IC85: TA2099N
- IC86: TA2099N
- IC87: TA2099N
- IC88: TA2099N
- IC89: TA2099N
- IC90: TA2099N
- IC91: TA2099N
- IC92: TA2099N
- IC93: TA2099N
- IC94: TA2099N
- IC95: TA2099N
- IC96: TA2099N
- IC97: TA2099N
- IC98: TA2099N
- IC99: TA2099N
- IC100: TA2099N

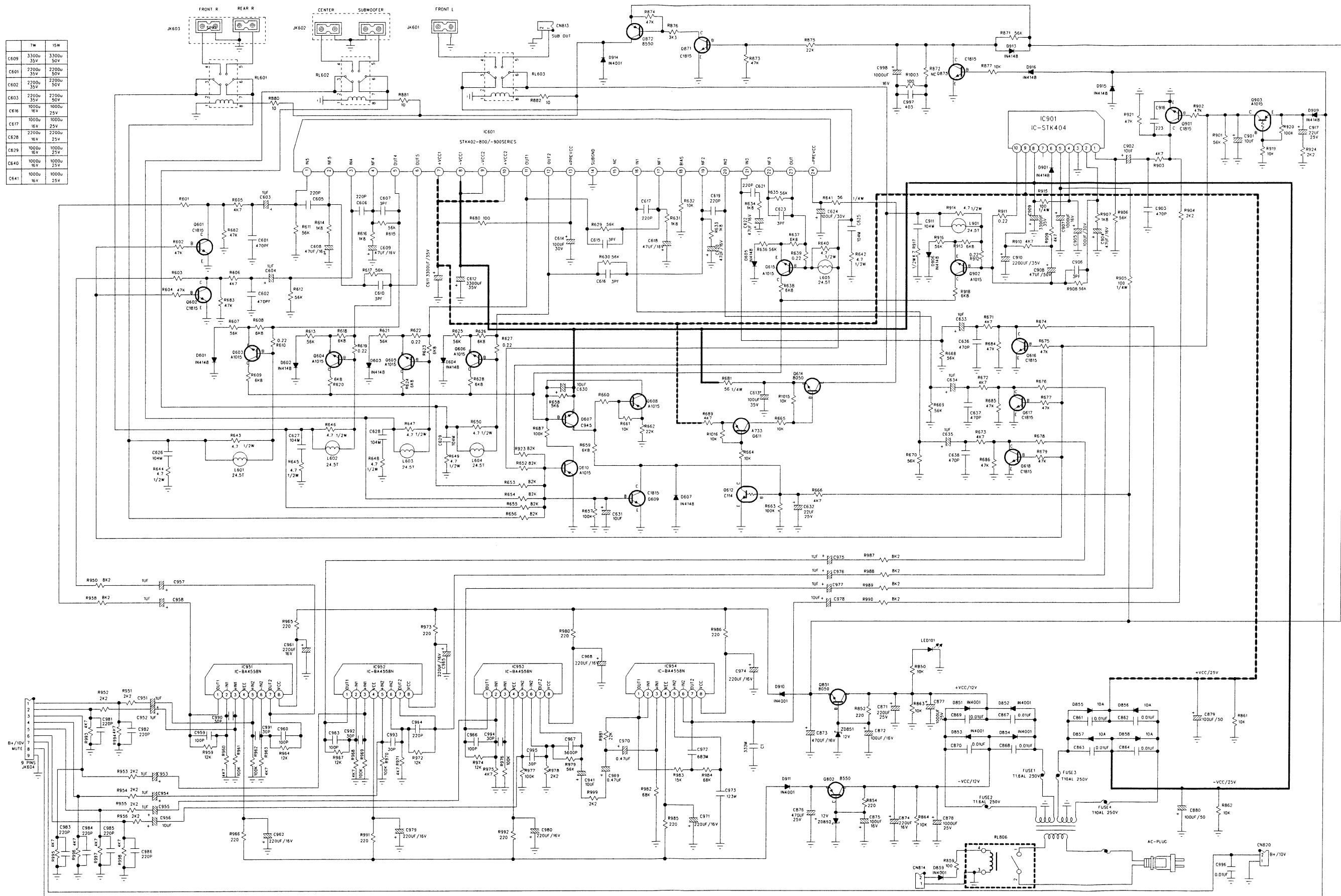
48

POWER SUPPLY SECTION



NOTES: 1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 Kohms).  
2. All capacitance values are indicated in "µF" (p=10<sup>-6</sup>µF).

## POWER AMPLIFIER SECTION (FOR SUB-WOOFER)



**NOTES:** 1. All resistance values are indicated in "ohms" (k=1000 ohms. M=1000 Kohms).  
2. All capacitance values are indicated in "μF" (p=10<sup>-6</sup> μF).

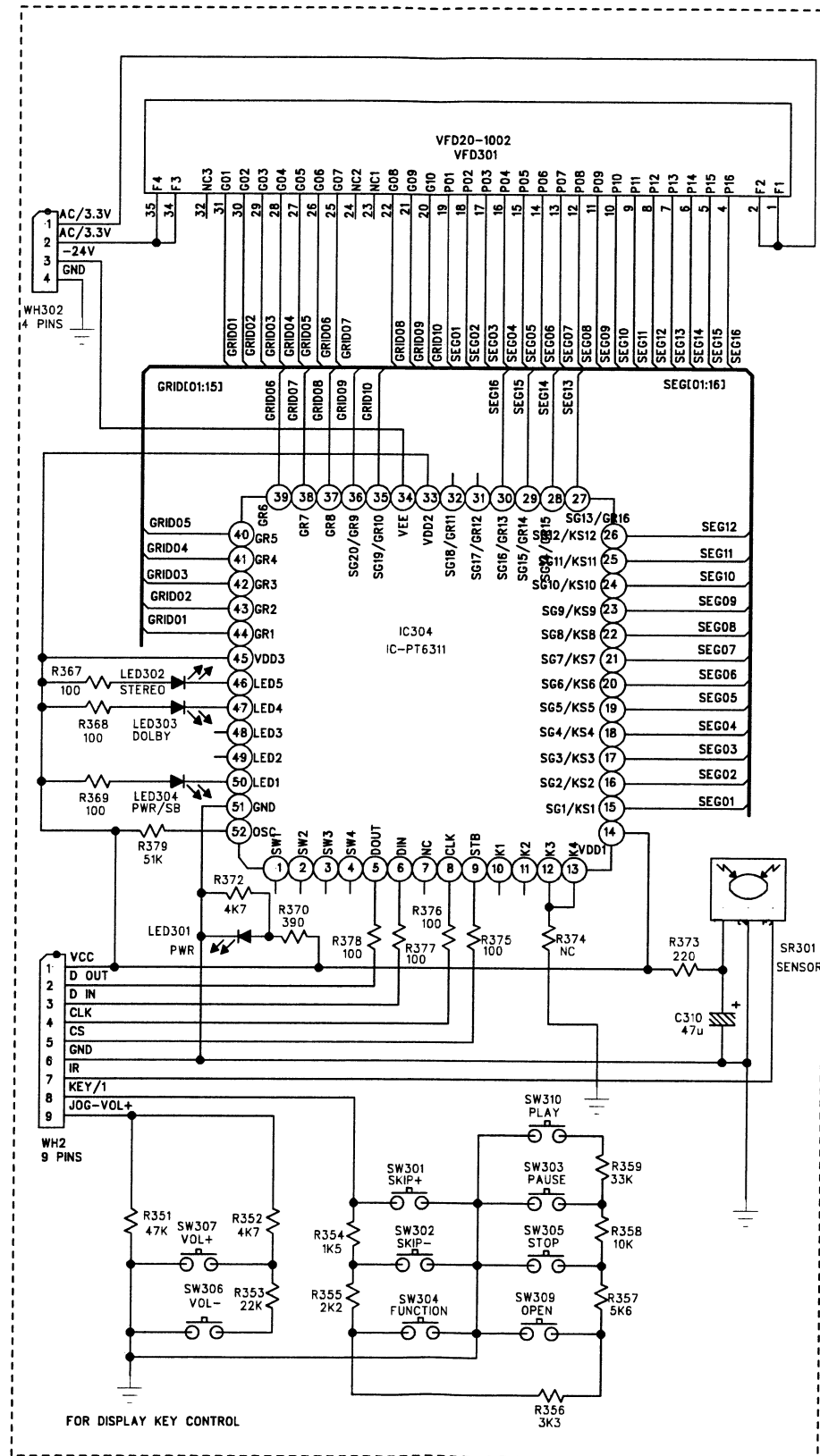


CONTROL SECTION

	AAS	AAS	AUX IN
R303	NC	10K	
R349	10K	NC	
R361			10K
R362			NC
R363	NC	10K	
R364	10K	NC	

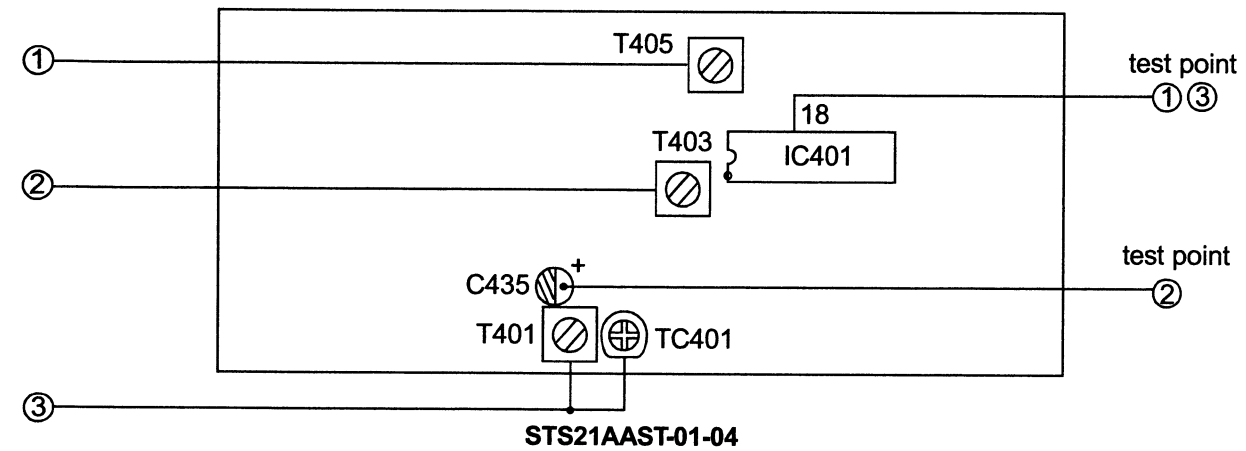
COUNTRY	R340	R342	R341
USA1	20K	100K	10K
USA2	20K	39K	5K6
EUROPE1	20K	5K6	27K
EPROE2	20K	12K	3K9
JAPAN	20K	3K3	1K

AM STEP	R347	R346
S/W CHG	47K	OPEN
ORIG STEP	47K	47K
TOG STEP	OPEN	47K



ALIGNMENT SET-UP PROCEDURES

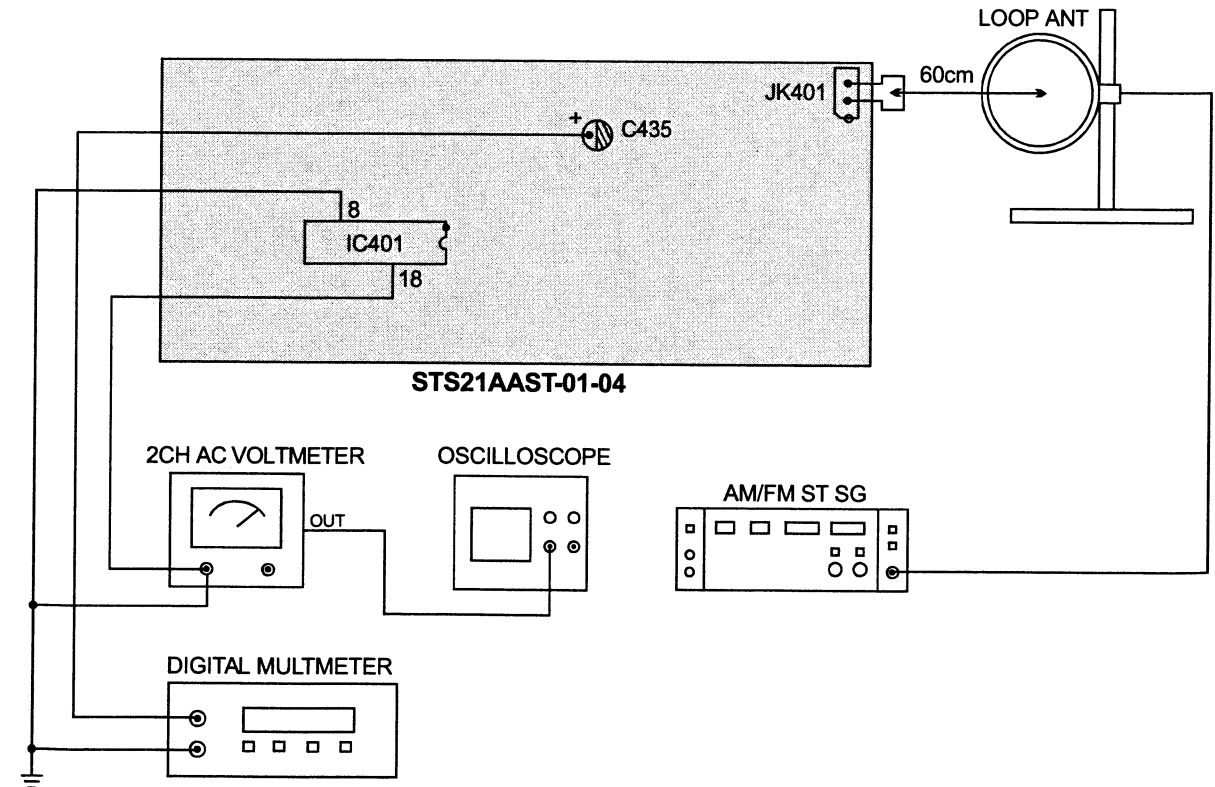
TUNER SECTION



1. AM IF Adjustment  
Test point: IC401 (TA2099N)  
Adjustment location: T405  
T405 ----- 450±3kHz
2. MW Frequency Range Adjustment  
Test point: C435 ⊕  
Adjustment location: T403  
Set the tuner frequency to be 531kHz.  
Adjust T403 so that the test point voltage is 1.7±0.05V.
3. MW Tracking Adjustment  
Test point: IC402 (TA2099N) 18 PIN  
Adjustment location: T401, TC401  
T401 ----- 603kHz waveform max.  
TC401 ----- 1404kHz waveform max.

EQUIPMENT CONNECTION DIAGRAM

MW SECTION



## VOLTAGE CHART

### CPU & DISPLAY CONTROL SECTION

#### TEST CONDITION: DVD PLAY

##### IC301 (TMP87EP26F)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0	2.43	2.15	4.75	0	0.24	0	4.01	4.61	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0.06	0.06	0.03	3.30	0.03	4.88	0.04	4.92	4.88	4.92
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	4.92	4.88	0	4.92	4.88	0	3.30	4.92	0.04	4.89
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	4.88	0.04	0.03	4.88	4.84	0.04	4.88	4.88	0	2.81
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	4.88	4.02	4.88	4.88	0	2.44	0.16	4.87	0	0
PIN'S NUMBER	51	52	53	54	55	56	57	58	59	60
DVD PLAY	4.92	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	61	62	63	64	65	66	67	68	69	70
DVD PLAY	/	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	71	72	73	74	75	76	77	78	79	80
DVD PLAY	/	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	81	82	83	84	85	86	87	88	89	90
DVD PLAY	/	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	91	92	93	94	95	96	97	98	99	100
DVD PLAY	/	/	/	/	/	/	/	/	/	4.92

##### IC302 (TC74HC373AP)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0.02	0.01	0.02	3.29	4.98	4.97	3.29	0.15	0	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	4.29	0	0.15	0.15	0	0	0.15	0	0	4.99

TRANSISTOR	Q301(2SC1417)			Q302(DTC114ES)		
	E	C	B	E	C	B
DVD PLAY	0	0.24	0	0	4.21	0

##### IC304 (PT6311)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	2.18	2.09	1.95	1.94	4.33	4.99	0	4.99	4.99	2.01
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	1.95	0	0	4.99	/	/	/	/	/	/
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	/	/	/	/	/	/	/	/	/	/
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	/	/	4.99	-25.10	/	/	/	/	/	/
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	/	/	/	/	5.00	5.00	5.00	5.00	5.00	4.80
PIN'S NUMBER	51	52								
DVD PLAY	0	2.69								

### POWER AMP. SECTION

#### TEST CONDITION: DVD PLAY

##### IC502 (BA4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	1.07	0.95	0.91	0	0.91	0.95	1.01	1.64

## VOLTAGE CHART - CONTINUED

##### IC504 (PT2322-S)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	4.20	4.22	4.20	4.19	4.19	4.20	4.21	0	4.19	4.19
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	4.20	4.21	4.22	4.21	4.22	4.22	4.22	4.22	4.22	8.46
PIN'S NUMBER	21	22	23	24	25	26	27	28		
DVD PLAY	4.22	4.22	4.23	4.32	4.32	0	4.21	4.22		

##### IC803 (BA05ST)

PIN'S NUMBER	1	2	3	4	5
DVD PLAY	4.20	7.86	0	5.00	0

##### IC802 (BA05ST)

PIN'S NUMBER	1	2	3	4	5
DVD PLAY	2.79	7.80	0	5.00	0

##### IC801 (LM78L05ACZ)

PIN'S NUMBER	1	2	3
DVD PLAY	5.68	0.60	11.48

TRANSISTOR	Q802(C1145ES)			Q803(C114ES)			Q804(A114)		
	E	C	B	E	C	B	E	C	B
DVD PLAY	0	2.08	0.13	0	0	2.08	14.18	13.80	0
TRANSISTOR	Q805(C1815)			Q806(B1566)			Q807(A1015)		
	E	C	B	E	C	B	E	C	B
DVD PLAY	9.95	13.41	10.47	14.11	10.65	13.56	14.09	13.65	13.08
TRANSISTOR	Q808(C8050)			Q809(C8550)			Q811(C114ES)		
	E	C	B	E	C	B	E	C	B
DVD PLAY	18.90	18.80	18.23	11.35	11.37	12.03	0	0	2.70
TRANSISTOR	Q812(A123)			Q813(C1815)			Q814(B1566)		
	E	C	B	E	C	B	E	C	B
DVD PLAY	14.02	14.04	0	11.50	13.55	12.05	14.16	12.21	13.43
TRANSISTOR	Q815(A1015)								
	E	C	B						
DVD PLAY	5.61	0	5.65						

### MPEG+SERVO SECTION

#### TEST CONDITION: DVD PLAY

##### U12 (S-24C01BFS)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	0	3.75	0	0	4.94

##### U13 (SST39VF800A)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0.70	0.50	0.60	0.70	0.60	2.80	0	2.82	0	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	3.20	3.30	0	0	0	0.40	0.70	2.50	2.30	0.40
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	0.65	1.00	1.00	1.92	1.45	0	0	1.26	1.28	1.44
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	1.58	0.64	1.50	1.22	1.25	1.08	3.30	0	0.74	0.71
PIN'S NUMBER	41	42	43	44	45	46	47	48		
DVD PLAY	0	1.04	0.81	2.04	1.70	0	3.30	0.19		

# **VOLTAGE CHART - CONTINUED**

**U16 (ZR36732PQC)**

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0	0.00	3.30	3.30	3.27	3.27	3.27	3.27	2.16	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	3.27	1.85	3.27	0	3.27	3.30	2.10	1.06	3.31	0.82
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	1.63	1.40	1.39	1.23	1.49	3.30	1.15	1.21	1.78	1.54
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	3.22	3.30	1.85	1.24	0	0.35	3.25	3.30	3.21	0
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	0.49	0.54	0.53	3.30	0.44	0.45	0.35	0.49	0	0.37
PIN'S NUMBER	51	52	53	54	55	56	57	58	59	60
DVD PLAY	0.27	3.30	2.12	0.35	0.51	0	3.04	3.30	3.14	3.16
PIN'S NUMBER	61	62	63	64	65	66	67	68	69	70
DVD PLAY	3.23	3.19	1.85	0	0	1.75	3.30	1.71	0	1.35
PIN'S NUMBER	71	72	73	74	75	76	77	78	79	80
DVD PLAY	3.31	1.40	0	1.40	1.48	1.27	3.31	1.40	1.61	0
PIN'S NUMBER	81	82	83	84	85	86	87	88	89	90
DVD PLAY	1.63	1.53	3.29	0.52	1.71	0	2.30	1.71	3.29	0.64
PIN'S NUMBER	91	92	93	94	95	96	97	98	99	100
DVD PLAY	1.42	1.66	0.07	3.28	3.04	1.64	0	3.28	3.24	0.26
PIN'S NUMBER	101	102	103	104	105	106	107	108	109	110
DVD PLAY	0.77	1.25	1.03	3.28	1.12	1.47	0	1.22	0	0
PIN'S NUMBER	111	112	113	114	115	116	117	118	119	120
DVD PLAY	0	3.28	0.29	0	0	1.82	1.59	0	1.61	1.59
PIN'S NUMBER	121	122	123	124	125	126	127	128	129	130
DVD PLAY	1.82	3.29	0	3.29	0	3.28	1.70	0	0	3.29
PIN'S NUMBER	131	132	133	134	135	136	137	138	139	140
DVD PLAY	1.63	0	0	0	2.90	3.29	1.07	0	0	1.04
PIN'S NUMBER	141	142	143	144	145	146	147	148	149	150
DVD PLAY	1.64	3.29	1.82	0	0	0.50	0	0.53	0.53	0
PIN'S NUMBER	151	152	153	154	155	156	157	158	159	160
DVD PLAY	2.57	0	0	2.20	1.96	1.65	2.33	0	1.65	0

**U11 (ZR36705TQC)**

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0	0	3.29	3.29	3.29	3.38	3.29	3.30	3.29	3.29
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	1.45	3.29	3.29	3.29	0	0	0	0	3.29	3.29
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	2.86	0.67	3.30	3.29	3.86	3.86	5.07	5.07	3.37	3.20
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	3.15	3.43	3.32	4.67	2.35	3.43	1.85	1.93	3.16	0
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	3.80	2.40	3.29	1.80	0.06	1.22	0.05	0	0	0
PIN'S NUMBER	51	52	53	54	55	56	57	58	59	60
DVD PLAY	0	0	0	0	0	0	0	0	1.60	2.53
PIN'S NUMBER	61	62	63	64	65	66	67	68	69	70
DVD PLAY	3.29	3.29	3.29	3.29	0	5.04	0.04	3.29	5.05	3.29
PIN'S NUMBER	71	72	73	74	75	76	77	78	79	80
DVD PLAY	0	3.29	3.11	3.11	2.03	5.05	5.05	3.29	5.05	5.05
PIN'S NUMBER	81	82	83	84	85	86	87	88	89	90
DVD PLAY	5.05	3.30	3.29	3.29	3.27	0.53	2.91	3.63	0.00	1.43
PIN'S NUMBER	91	92	93	94	95	96	97	98	99	100
DVD PLAY	1.50	3.29	0.15	3.29	3.29	3.29	3.29	3.29	4.32	0.02

# **VOLTAGE CHART - CONTINUED**

**U17 (K4S161622D)**

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	3.30	1.45	0.70	0	0.77	0.75	3.30	2.10	0.82	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0.78	0.90	3.30	0	3.19	3.23	3.16	3.08	0.52	1.74
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	0	0	0.45	0	3.30	0	0.55	0.55	0.53	0.55
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	0.26	0.30	0	3.30	1.73	0	0	3.30	1.45	1.23
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	0	1.20	1.15	3.30	1.65	1.16	0	1.16	0.86	0

**U25 (WM8739EDS)**

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	3.76	0	1.68	0.25	3.15	0	3.15	1.65	0.37	0.69
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0.97	1.65	0	3.15	0	1.56	1.56	1.57	0	0

**U31 (WM8746EDS)**

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	4.32	1.68	1.65	1.65	1.66	1.65	1.65	0	0	1.65
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0	3.30	0	3.75	4.35	2.17	2.18	0	2.18	0
PIN'S NUMBER	21	22	23	24	25	26	27	28		
DVD PLAY	2.18	0	2.18	0	2.18	0	2.18	4		

**U22 (NJM4580E)**

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	10.43	0	0	0	11.23

**U23 (NJM4580E)**

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	10.43	0	0	0	11.23

**U24 (NJM4580E)**

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	0	10.43	0	0	0	11.23

**U26 (74HC04AF)**

PIN'S NUMBER	1	2	3	4	5	6	7
DVD PLAY	2.03	2.10	2.10	2.16	2.16	2.15	0
PIN'S NUMBER	8	9	10	11	12	13	14
DVD PLAY	3.16	2.15	2.16	2.15	2.16	2.15	4.32

**U7 (W29EE512P-70)**

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0	1.65	1.88	2.10	2.09	1.59	1.75
PIN'S NUMBER	9	10	11	12	13	14	15	16
DVD PLAY	2.00	1.96	1.97	1.96	1.61	1.86	1.69	0
PIN'S NUMBER	17	18	19	20	21	22	23	24
DVD PLAY	1.43	1.65	2.00	0	1.76	0	1.80	1.70
PIN'S NUMBER	25	26	27	28	29	30	31	32
DVD PLAY	1.25	1.81	1.77	0.70	2.24	0	3.33	4.91

## VOLTAGE CHART - CONTINUED

### U1 (M5703T/SP3721A)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	3.56	3.56	2.51	2.51	3.50	3.50	3.50	3.50
PIN'S NUMBER	9	10	11	12	13	14	15	16
DVD PLAY	3.52	0	0	2.54	2.54	2.57	3.01	2.53
PIN'S NUMBER	17	18	19	20	21	22	23	24
DVD PLAY	4.29	2.51	0	0	0.17	3.33	0	5.00
PIN'S NUMBER	25	26	27	28	29	30	31	32
DVD PLAY	0	2.51	2.51	5.01	0.12	2.73	2.56	5.01
PIN'S NUMBER	33	34	35	36	37	38	39	40
DVD PLAY	0	4.24	0	3.20	0	3.34	4.95	3.23
PIN'S NUMBER	41	42	43	44	45	46	47	48
DVD PLAY	2.52	2.49	1.83	4.28	3.96	3.33	0	0
PIN'S NUMBER	49	50	51	52	53	54	55	56
DVD PLAY	0	0	2.50	2.52	0	3.47	0.59	2.34
PIN'S NUMBER	57	58	59	60	61	62	63	64
DVD PLAY	2.98	5.01	3.53	3.53	3.80	3.80	3.54	1.41

### U5 (M5705)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	0	2.50	2.48	5.01	2.49	2.51	3.34	1.26	2.49	3.12
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	2.56	2.48	2.51	5.01	2.11	0	0.10	2.51	2.51	2.51
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	2.52	0	2.52	2.49	1.95	5.01	3.21	0	0	0
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	3.34	0	0	2.62	3.34	0	0	0	3.34	1.65
PIN'S NUMBER	41	42	43	44	45	46	47	48	49	50
DVD PLAY	4.86	0	0	4.86	0	0	2.62	3.33	2.59	3.31
PIN'S NUMBER	51	52	53	54	55	56	57	58	59	60
DVD PLAY	2.60	2.60	0	0	0	2.59	1.66	0	0	0
PIN'S NUMBER	61	62	63	64	65	66	67	68	69	70
DVD PLAY	0	1.59	1.89	1.72	0.22	1.70	2.01	2.01	1.76	2.62
PIN'S NUMBER	71	72	73	74	75	76	77	78	79	80
DVD PLAY	2.59	0	0	0	1.78	3.34	1.82	1.82	2.14	2.10
PIN'S NUMBER	81	82	83	84	85	86	87	88	89	90
DVD PLAY	1.51	1.75	2.00	1.97	1.97	1.98	1.91	0	0.60	2.23
PIN'S NUMBER	91	92	93	94	95	96	97	98	99	100
DVD PLAY	1.63	2.60	3.30	3.09	1.05	1.53	2.60	1.90	0.10	0
PIN'S NUMBER	101	102	103	104	105	106	107	108	109	110
DVD PLAY	4.09	3.99	1.25	0	0	1.71	1.35	0	1.58	0
PIN'S NUMBER	111	112	113	114	115	116	117	118	119	120
DVD PLAY	0.88	1.26	0.75	1.30	3.34	0	1.68	0	0.99	0.66
PIN'S NUMBER	121	122	123	124	125	126	127	128	129	130
DVD PLAY	0	0	0	0	0	1.89	1.90	0	1.81	0
PIN'S NUMBER	131	132	133	134	135	136	137	138	139	140
DVD PLAY	1.81	1.58	0	1.83	0	1.94	1.89	0	0	0
PIN'S NUMBER	141	142	143	144	145	146	147	148	149	150
DVD PLAY	0	0	1.70	0	3.09	3.34	0	0	0.30	0
PIN'S NUMBER	151	152	153	154	155	156	157	158	159	160
DVD PLAY	0	0	0	0	0.25	0.20	0	0	0	0
PIN'S NUMBER	161	162	163	164	165	166	167	168	169	170
DVD PLAY	0	3.34	0.12	0.11	0	2.51	2.51	0	2.68	0
PIN'S NUMBER	171	172	173	174	175	176				
DVD PLAY	2.51	2.51	2.51	2.51	2.51	1.75				

## VOLTAGE CHART - CONTINUED

### U3 (BA033FP)

PIN'S NUMBER	1	2	3
DVD PLAY	4.95	0	3.35

### U9 (XC61AN1902MR)

PIN'S NUMBER	1	2	3
DVD PLAY	4.88	3.47	0

### U2 (BA5983FM)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	2.49	2.51	2.51	2.46	2.51	0	2.53	0	3.32	4.88
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	2.40	2.53	2.51	2.41	2.24	2.08	3.52	0.76	4.88	3.68
PIN'S NUMBER	21	22	23	24	25	26	27	28		
DVD PLAY	0	2.84	2.51	2.51	2.48	2.51	2.51	4.90		

### U29 (BA17805FP)

PIN'S NUMBER	1	2	3
DVD PLAY	11.44	0	5.02

### U4 (FAN8082)

PIN'S NUMBER	1	2	3	4	5	6	7	8
DVD PLAY	0	0.37	0.19	1.44	1.44	12.16	12.17	0.37

### U27 (LD1117S)

PIN'S NUMBER	1	2	3	4
DVD PLAY	1.85	1.85	3.31	0.59

### U28 (LD1117S33C)

PIN'S NUMBER	1	2	3	4
DVD PLAY	0	3.30	4.95	3.30

### U6 (M11B416256A-35J)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
DVD PLAY	4.94	1.54	1.54	1.10	1.30	4.95	0.80	0.56	0.65	0.54
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
DVD PLAY	0	0	3.33	3.31	0	0.10	0.20	0.11	0.15	4.94
PIN'S NUMBER	21	22	23	24	25	26	27	28	29	30
DVD PLAY	0	0.24	0.25	0.30	0.23	0.33	0.22	3.18	3.21	0
PIN'S NUMBER	31	32	33	34	35	36	37	38	39	40
DVD PLAY	1.97	1.94	1.94	1.95	0	1.83	1.85	0	1.93	0

## TUNER SECTION

### TEST CONDITION: SET AM/FM ON ONE FREQUENCY

#### IC401 (TA2099N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
AM	1.97	2.72	0.11	1.97	1.34	6.37	0.48	0
FM	1.95	2	0	2	0.97	7.43	1.29	0
PIN'S NUMBER	9	10	11	12	13	14	15	16
AM	4.96	0.04	5.68	0.76	0.77	0.11	4.89	4.92
FM	4.98	4	4.13	0.77	0.77	0.00	0.52	0.65
PIN'S NUMBER	17	18	19	20	21	22	23	24
AM	1.19	0.48	2.05	1.81	1.97	1.97	6.43	1.97
FM	1.19	1.32	1.99	2.44	1.97	1.97	7.40	1.97

## VOLTAGE CHART - CONTINUED

### IC402 (TC9257F)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
AM	2.45	2.47	4.29	4.29	0.01	0.14	0.02	0.11	0.02	0.02
FM	2.38	2.41	4.97	4.97	0	0.14	0	0.11	0	0
PIN'S NUMBER	11	12	13	14	15	16	17	18	19	20
AM	4.97	4.97	0	2.43	0	2.44	1.44	1.37	1.15	1.14
FM	0	0	0	2.36	0	2.36	0.17	0.17	0.76	1.08

### IC403 (BU1923F)

PIN'S NUMBER	1	2	3	4	5	6	7	8
FM	2.13	2.41	2.30	2.27	4.30	0	0	2.29
PIN'S NUMBER	9	10	11	12	13	14	15	16
FM	0	0	0	4.30	0	2.06	0	2.25

### SUB-WOOFER PORTION

#### TEST CONDITION: DVD PLAY

### IC601 (STK402)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	-0.16	-0.17	-0.16	-0.17	0	0	30.50	-30.50
PIN'S NUMBER	9	10	11	12	13	14	15	16
	-30.50	30.30	0	0	27.30	0	-26.90	-0.16
PIN'S NUMBER	17	18	19	20	21	22	23	24
	-0.16	-25.50	-0.16	-0.16	-0.16	-0.16	0	-26.90

### IC901 (STK404)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10
	0.15	0.15	0	-30.30	12.04	1.20	-1.05	-30.50	30.50	0

### IC951 (BA4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	0	0	0	-10.60	0	0	0	10.40

### IC952 (BA4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	0	0	0	-10.55	0	0	0	10.43

### IC953 (BA4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	0	0	0	-10.70	0	0	0	10.43

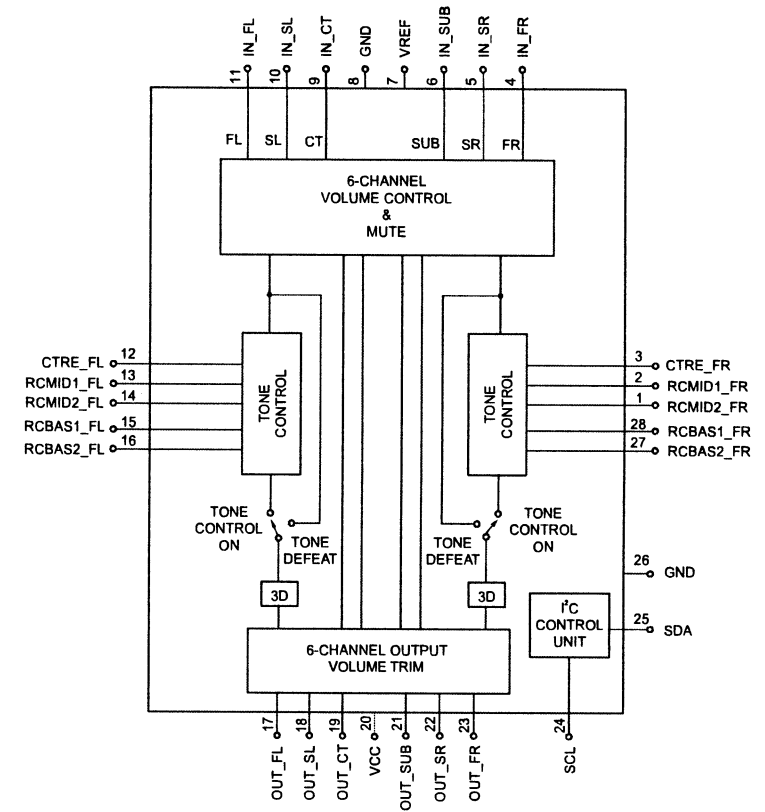
### IC954 (BA4558N)

PIN'S NUMBER	1	2	3	4	5	6	7	8
	0.14	0.14	0	10.72	0.15	0.15	0.15	10.43

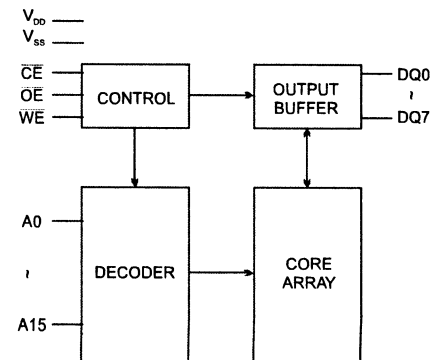
TRANSISTOR	Q851(8050)			Q802(8550)		
	E	C	B	E	C	N
	11.74	14.36	12.42	-12.05	-15.74	-12.68

## IC BLOCK DIAGRAMS & IC PINS DESCRIPTION

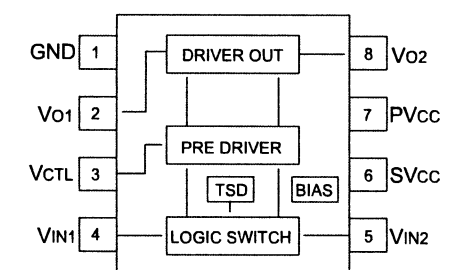
### IC504 PT2322-S



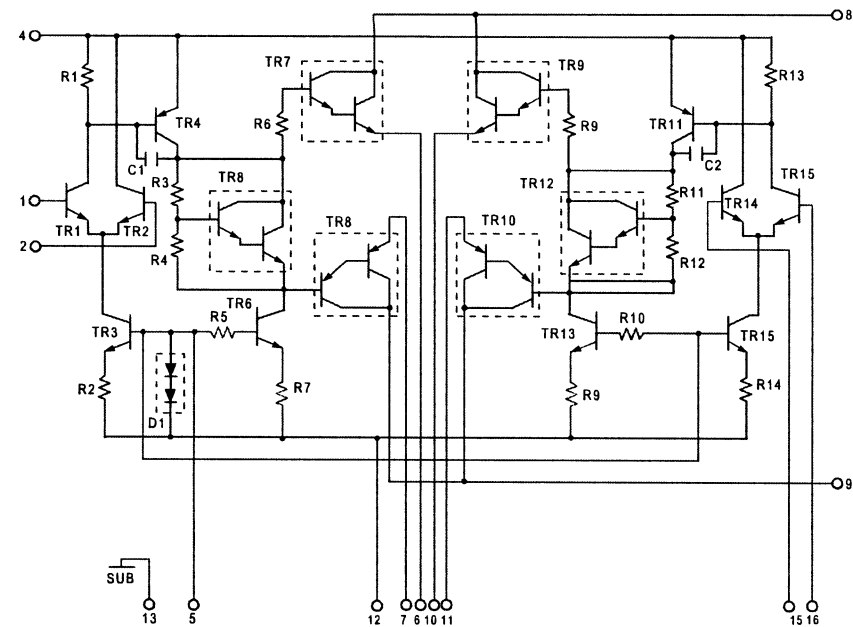
### U7 W29EE512P-70



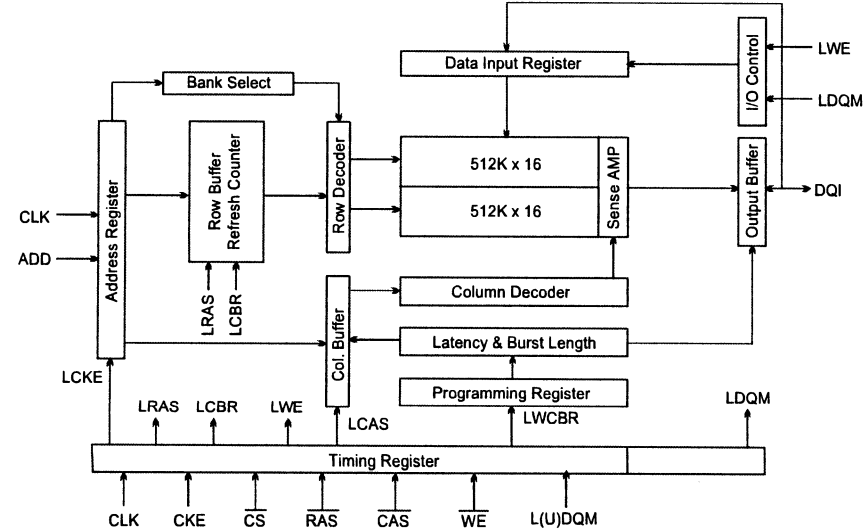
### U4 FAN8082



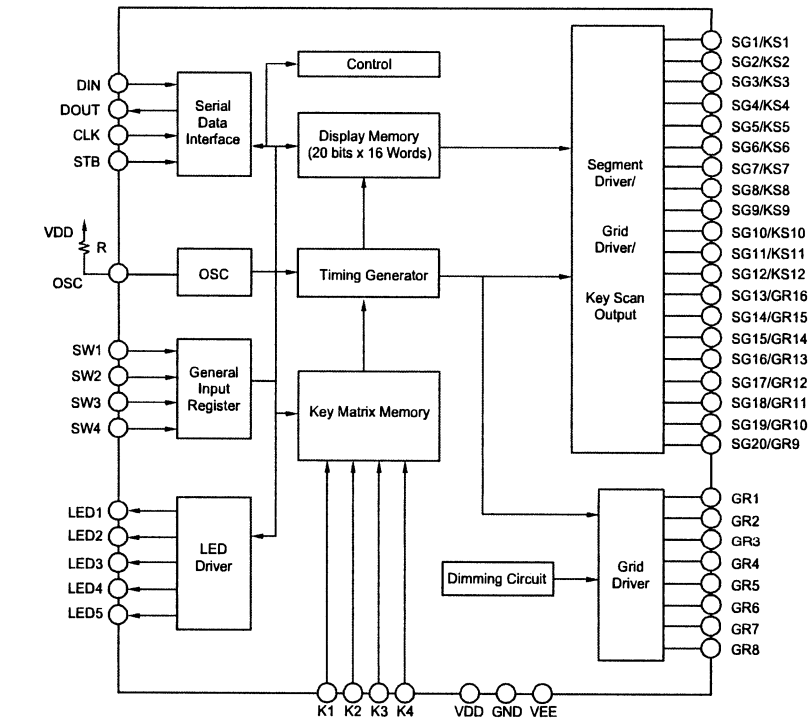
IC601 STK402



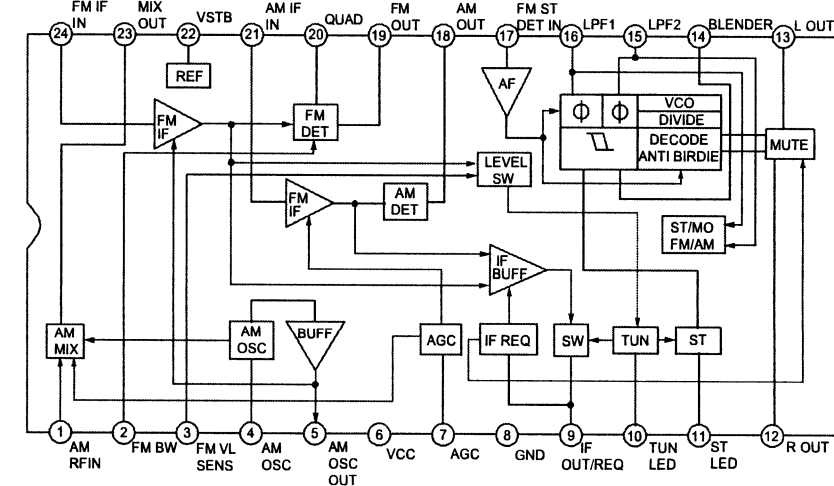
U17 K4S161622D



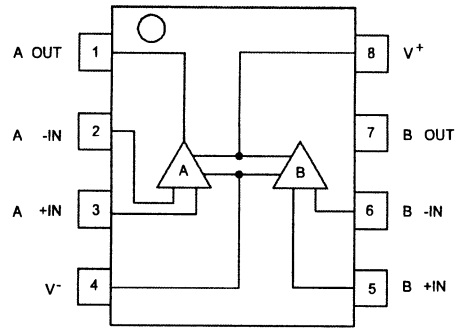
IC304 PT6311



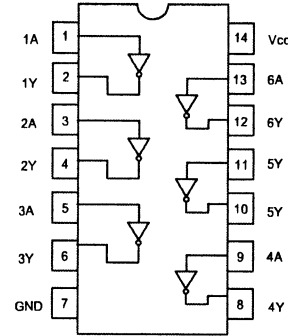
IC401 TA2099N



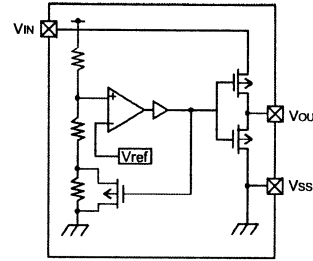
**U22, U23, U24 NJM4580E**



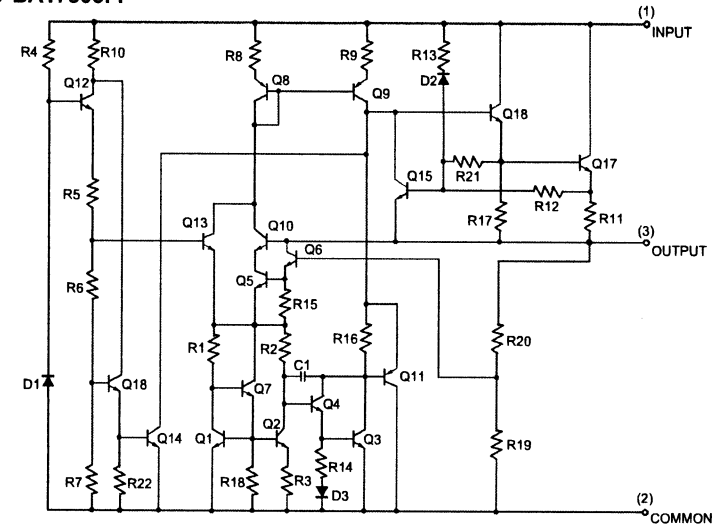
**U26 TC74HCU04AF**



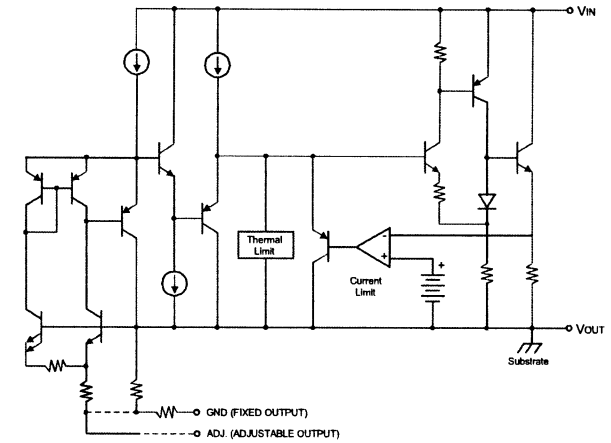
**U9 XC61AN1902MR**



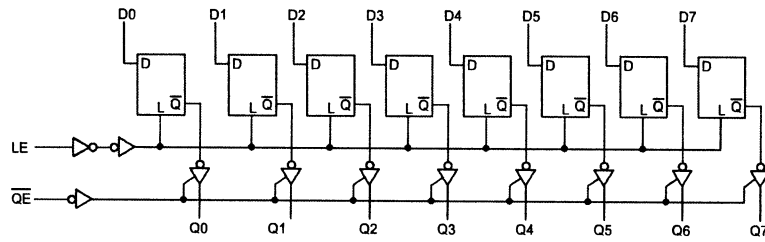
**U29 BA17805FP**



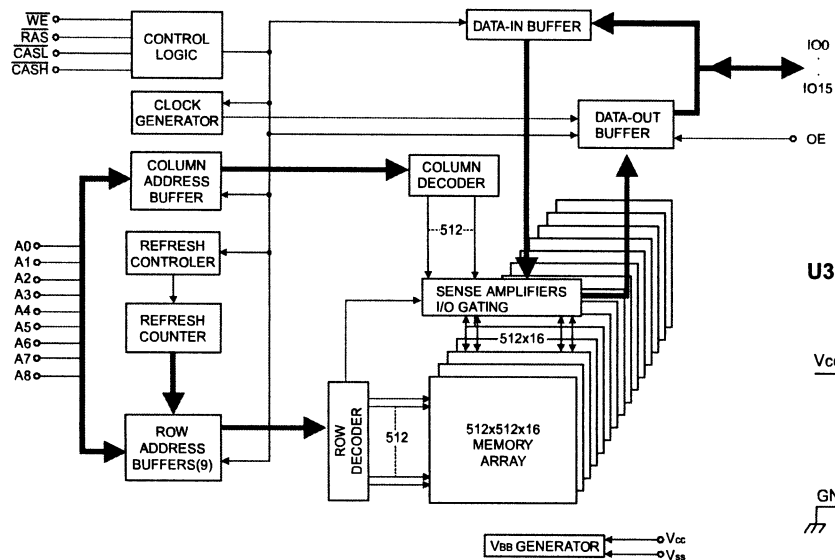
**U27 LD1117S  
U28 LD1117S33**



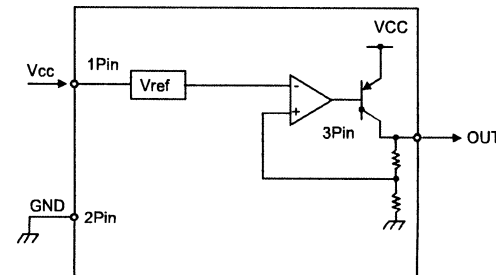
**IC302 TC74HC373AF**



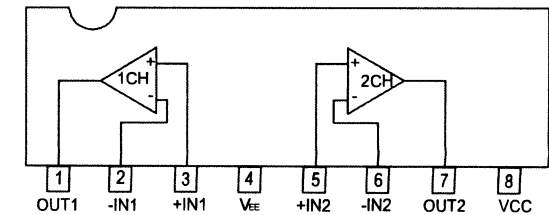
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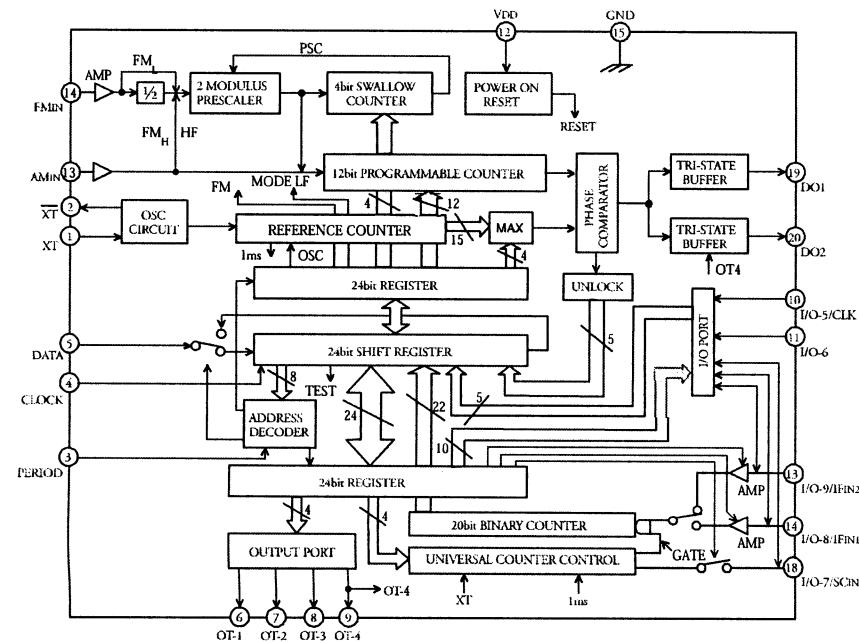
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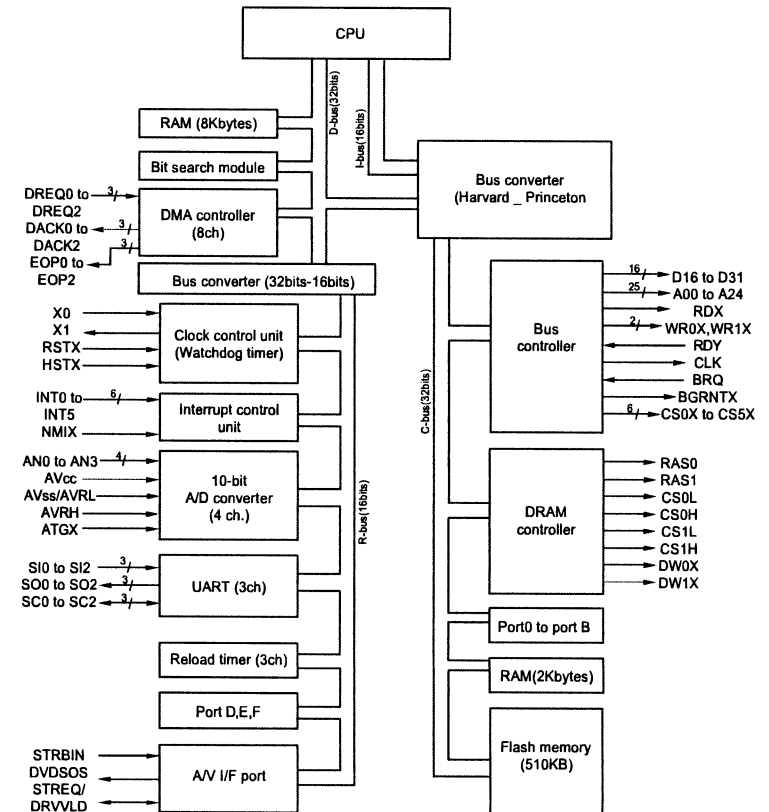
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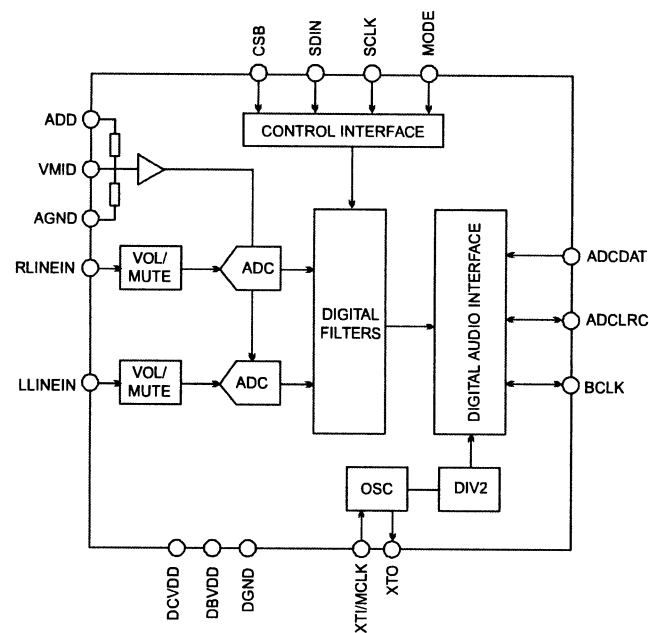


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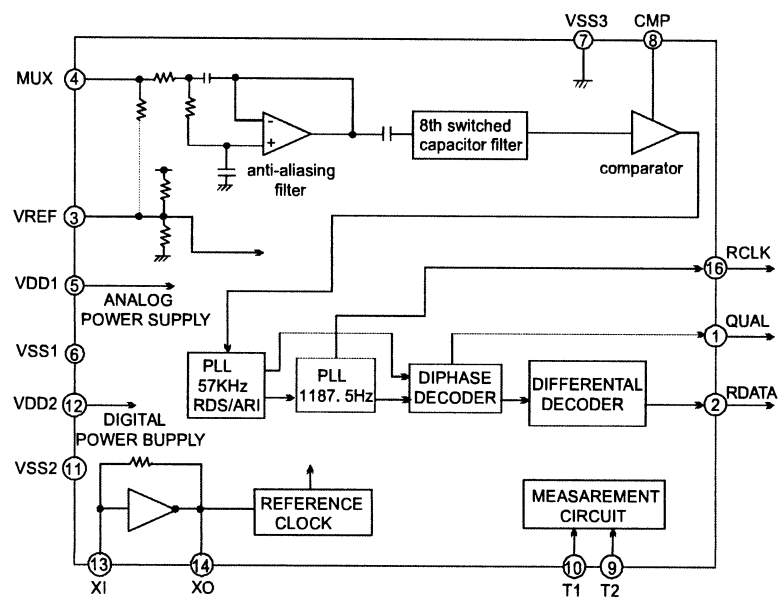
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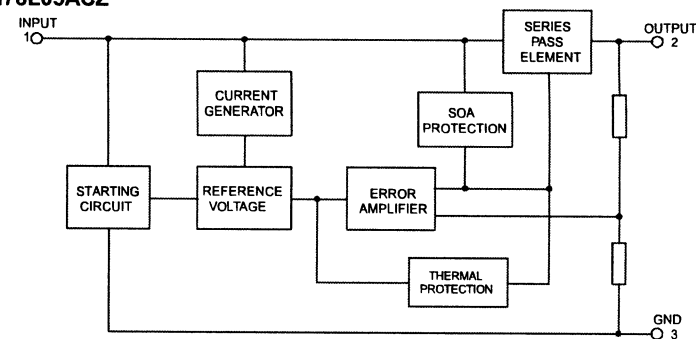
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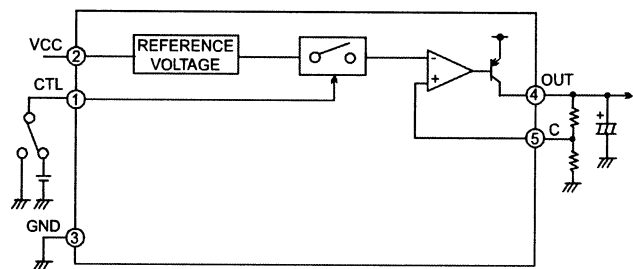
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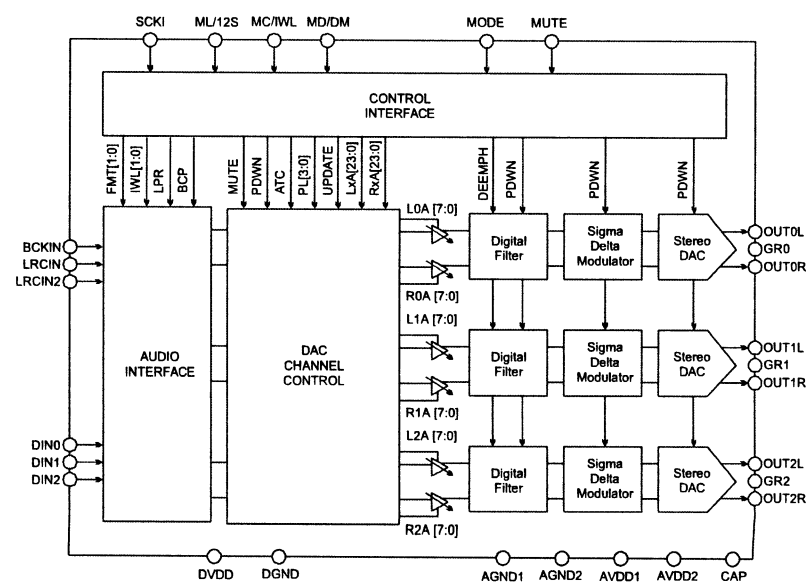
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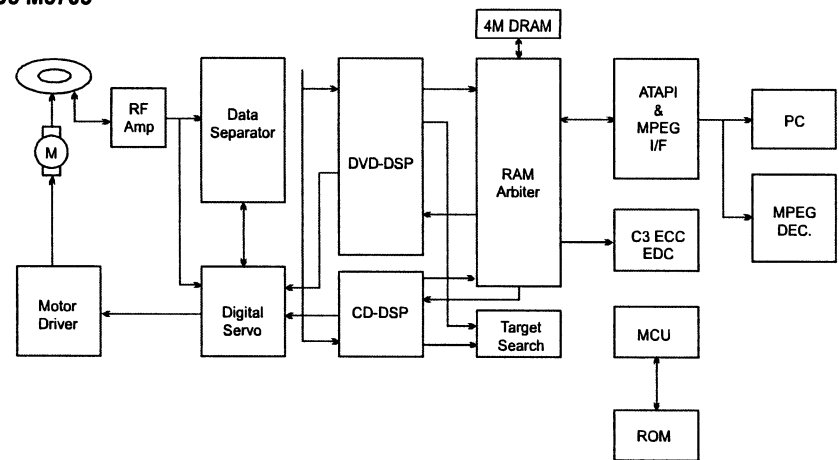
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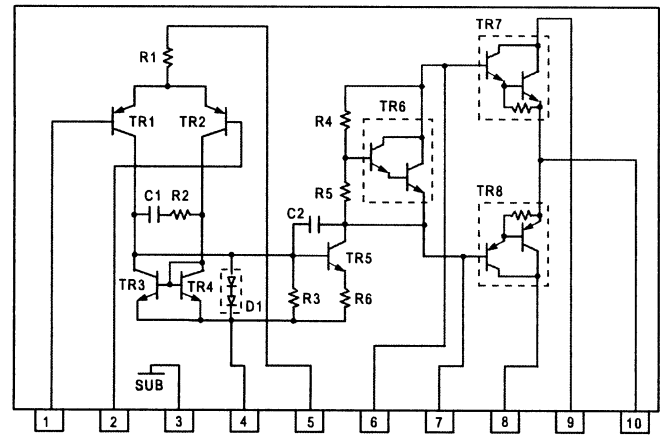
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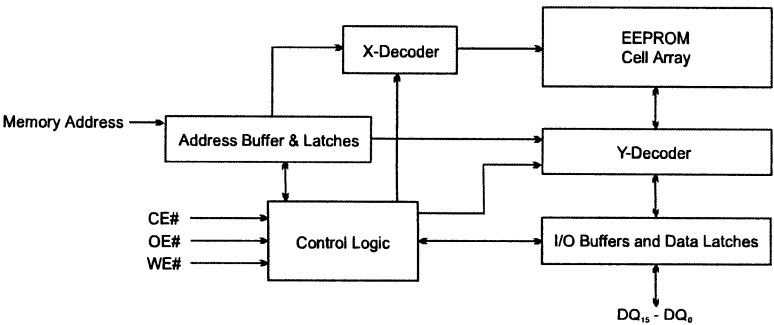
U5 M5705



IC901 STK404



U13 SST39VF800A



IC301 TMP-87EP26F PINS DESCRIPTION

Pin	Port Name	Pin Name	Description
1	VSS	VSS	Ground
2	XOUT	XOUT	8MHz
3	XIN	XIN	8MHz
4	/RESET	RESET	
5	P2.2(XTOUT)	CS	CS to Display driver
6	P2.1(XTIN)	CLK	Clock to Display driver
7	TEST	TEST	
8	P2.0 (INT5/STOP)	STOP*	Poewer Down detector
9	P4.0 (INT3/TC3)	IR*	Remote controller
10	P4.1 (PWMPDO)	CLKSHIFT	Clock shift on tuner
11	P4.2 (/SCK1)	RDSCLK*	RDS Clock input pin
12	P4.3 (SI1)	REDSDAT*	RDS Data input pin
13	P4.4 (SO1)	Tuner/-DVD	Selection of Tuner or DVD
14	P4.5 (/SCK2)	DVD-VCLK*	DVD VFD Clock pin
15	P4.6 (SI2)	DVD-VDAT*	DVD VFD Data pin
16	P4.7 (SO2)		
17	P0.0	/OE	373 OE pin
18	P0.1	LE	373 LE pin
19	P0.2	DOUT	Data input from Display Driver
20	P0.3	PLL-CLK	Tuner Clock pin
21	P0.4	PLL-PERIOD	Tuner Period pin
22	P0.5	STEREO	Tuner STEREO input pin
23	P0.6	DVD-ACT	(Not used)
24	P0.7	DVD-IR	IR signal to DVD
25	P1.0 (/INT0)	SHORT-CIRCUIT	Speaker Short circuit detect
26	P1.1 (INT1)		
27	P1.2 (INT2/TC1)	DVD-VCS	DVD CS to Display driver
28	P1.3 (DVO)	CH-MUTE	
29	P1.4 (PPG)	AUX	Channel Mute pin
30	P1.5 (TC2)	DVD-PWR	AUX Channel Selection
31	P1.6	MAIN-PWR	DVD Power control pin
32	P1.7	SYSMUTE	Main Power control pin
33	P3.0	VRDDIN	System Mute
34	P3.1	VFDCS	Data output to Display driver
35	P3.2	VFDCLK	Clock to Display driver
36	P3.3	PLL-DATA	Tuner Data pin
37	P3.4	SCL	I2C Clock pin for Volume IC
38	P3.5	SDA	I2C Data pin for Volume IC
39	P3.6	CH-MUTE	Channel mute pin
40	P5.0 (AIN0)	COUNTRY	Tuner Country selection
41	P5.1(AIN1)	SIGNAL-DET	Tuner Signal Strength detection
42	P5.2 (AIN2)	JOG-VOL+	Jogger Volume +
43	P5.3 (AIN3)	JOG-VOL-	Jogger Volume -
44	P5.4 (AIN4)	KEY0	Keyboard
45	P5.5 (AIN5)		
46	P5.6 (AIN6)	AM-STEP	Tuner AM Step selection
47	P5.7 (AIN7)		
48	VAREF	VAREF	Analog VCC
49	BOOT	BOOT(H-Program)	Program Data to EEPROM
50	VSS	VSS	Ground
51	VDD	VDD	+5V
52	P8.0 (SEG39)		
53	P8.1 (SEG38)		
54	P8.2 (SEG37)		

# IC301 TMP-87EP26F PINS DESCRIPTION - CONTINUED

Pin	Port Name	Pin Name	Description
55	P8.3 (SEG36)		
56	P8.4 (SEG35)		
57	P8.5 (SEG34)		
58	P8.6 (SEG33)		
59	P8.7 (SEG32)		
60	P7.0 (SEG31)		
61	P7.1 (SEG30)		
62	P7.2 (SEG29)		
63	P7.3 (SEG28)		
64	P7.4 (SEG27)		
65	P7.5 (SEG26)		
66	P7.6 (SEG25)		
67	P7.7 (SEG24)		
68	P6.0 (SEG23)		
69	P6.1 (SEG22)	RVS_SW	3-CD Tokyo Pigeon Changer
70	P6.2 (SEG21)	FWD_SW	3-CD Tokyo Pigeon Changer
71	P6.3 (SEG20)	OPCL_SW	3-CD Tokyo Pigeon Changer
72	P6.4 (SEG19)	CN1_SW	3-CD Tokyo Pigeon Changer
73	P6.5 (SEG18)	CN2_SW	3-CD Tokyo Pigeon Changer
74	P6.6 (SEG17)	HOME_SW	3-CD Tokyo Pigeon Changer
75	P6.7 (SEG16)	EXTRA_SW	3-CD Tokyo Pigeon Changer
76	P9.0 (SEG15)	CMF	3-CD Tokyo Pigeon Changer
77	P9.1 (SEG14)	DMR	3-CD Tokyo Pigeon Changer
78	P9.2 (SEG13)	DMF	3-CD Tokyo Pigeon Changer
79	P9.3 (SEG12)	DMR	3-CD Tokyo Pigeon Changer
80	SEG11		
81	SEG10		
82	SEG9		
83	SEG8		
84	SEG7		
85	SEG6		
86	SEG5		
87	SEG4		
88	SEG3		
89	SEG2		
90	SEG1		
91	SEG0		
92	COM3		
93	COM2		
94	COM1		
95	COM0		
96	VLC	LCD Power	
97	PD0		
98	PD1		
99	PD2		
100	VDD	VDD	

# U16 ZR36732PQC PINS DESCRIPTION

Pin No.	Pin Name	Type	Description
<b>Reset, Standby and Idle Status Interface</b>			
124	RESET#	I	Reset input. Once de-asserted, the Decoder starts the initialization process.
122	STNDBY#	I	Stand-by input. When asserted together with RESET#, all outputs and bidirectional pins float, such that the Decoder is electrically disconnected from its surroundings. All internal clocks are disabled, and the power consumption is minimized.
160	IDLE	3-S	Idle, Init and Reset states indication output.
<b>Host Interface</b>			
2	HWID	I	Determines the width of the host interface data bus. It is allowed to be changed only during RESET. A low level (GNDP) configures the Decoder to an 8-bit host data interface, a high level (VDDP) to 16-bit width.
1	HORD	I	Determines the order of bytes on the host interface data bus in case of 16-bit width (HWID at VDDP). It is allowed to be changed only during RESET. A low level (GNDP) configures the Decoder to input/output the m.s. Byte on HD [15:8]; A high level (VDDP) to input/output the m.s. byte on HD [7:0]. Must be at GNDP if the host data bus is 8 bits.
4	HTYPE	I	Determines the protocol type for the 8 and 16 bits modes host interface. It is allowed to be changed only during RESET. A low level (GNDP) configures the Decoder to type A, a high level (VDDP) to type B.
17,18 20,21 22,23 24,25	HD[7], HD[6] HD[5], HD[4] HD[3], HD[2] HD[1], HD[0]	3-S	For 16 bits mode, the 8 I.S. Data lines of host data bus. For 8 bits mode, only these signals are defined as host data signals.
9,11 13,15	HD[11], HD[10] HD[9], HD[8]	3-S	When HWID is connected to VDDP, these are data lines 11:8 of the 16-bit host data bus.
5,6 7,8	HD[15], HD[14] HD[13], HD[12]	3-S	When HWID is connected to VDDP, these are data lines 15:12 of the 16-bit host data bus. When HWID is connected to GNDP, these are the CD-DSP12S input port. pins as explained in the CD-DSP pin description.
27,28 29,30	HA[3], HA[2] HA[1], HA[0]	I	Host address inputs. These input signals indicate the register accessed in every cycle on the host interface.
32	HCS#	I	Host chip-select input.
31	HWR#-HR/W#	I	In host protocol Type A (HTYPE= GNDP): HR/W# This input determines the direction of the host access. In host protocol Type B (HTYPE=VDDP): HWR#. Host write input.
34	HRD#-HDS#	I	In host protocol Type A (HTYPE = GNDP): HDS#. Data strobe input (active low) In host protocol Type B (HTYPE=VDDP): HRD#. Host read input. (active low.)
36	HRDY	3-S	Host ready output. When this signal is tri-stated (i.e., it requires a pull-up resistor), up to SysConfig.CodBurstLed bytes of code can be written to the Decoder with no need to poll its condition in between. When HRDY is low during a host access, the Decoder may still receive at least two additional bytes of code without corrupting the data.
37	HIRQ#	3-S	Interrupt request. This output signal requests an interrupt from the host controller, if one of the events associated to interrupts occurs, and it is not masked-off. It is de-asserted if the host responds to the interrupt by reading the interrupt status register, or if the host disables the interrupt, or after RESET Deassertion of the HIRQ# output has two modes: De-activated and then tri-stated or directly to a tri-state condition. The pin needs external pull-up resistor.
39	HACK#	HACK#	Host acknowledge output. In protocol A, the Decoder indicates that a read or write cycle is completed by asserting this output. In protocol B, this signal is used by the Decoder to indicate a wait state that may be used by fast hosts. In protocol B the host may ignore the HACK# signal. When this signal is deasserted it is de-activated and then tri-stated. This pin needs an external pull-up resistor.

## U16 ZR36732PQC PINS DESCRIPTION - CONTINUED

Pin No.	Pin Name	Type	Description
<b>General Purpose I/O (Host Interface)</b>			
134	GPAIO	3-S	General purpose input/output pin,monitored/controlled by the audio processor software.After RESET, this pin is defined as input.Its definition can be configured through ADP commands.
145	GPSI	I	General purpose input,monitored by the system de-multiplexer/video processor software.
143	GPSO	O	General purpose output,controlled by the system de-multiplexer/video processor software. After RESET it outputs a low level.
<b>DVD-DSP Interface</b>			
151	DVDREQ	O	DVD-DSP data request output (programmable polarity)
149	DVDVALID	I	DVD-DSP data valid input (programmable polarity)
148	DVDSOS	I	DVD-DSP start of sector input (programmable polarity)
159,158 157,156 155,154 153,152	DVDAT[7],[6] DVDAT[5],[4] DVDAT[3],[2] DVDAT[1],[0]	I	DVD-DSP data input bus.
150	DVDSTRB	I	DVD-DSP data bit strobe (clock)input. Programmable polarity.
147	DVDERR	I	DVD-DSP error indication input.Programmable polarity.
5 6 7 8	CDERR CDFRM CDDAT CDCLK	I	When HWID is connected to GNDP, these are the CD DSPI <sup>2</sup> S input port pins as follows: CDERR: data error indication input CDFRM: left/right channel frame input CDDAT: data input CDCLK:bit clock input When HWID is connected to VDDP, these are HD [15:12] of the host data bus ,as explained in the host interface pin description.
<b>Video Syncs and Clocks Interface</b>			
127	VCLKx2	3-S	Main video clock.27.000MHz.
92	VCLK	3-S	A division by two of the VCLKx2 signal. This signal is used as a sync qualifier.
95	HSYNC	3-S	Horizontal sync. Polarity and duration are programmable.
93	VSNC	3-S	Vertical sync. Polarity and duration are programmable.
96	FI	3-S	Field indication. Polarity is programmable.
<b>Analog Video Encoder Interface</b>			
102	CVBS/G/Y (DAC A)	O	When the Decoder outputs composite video, this line is CVBS When the Decoder outputs RGB, this line is the Green output When the Decoder outputs YUV,this line is the Y output
105	Y/R/V (DAC B)	O	When the Decoder outputs the composite video,this line is Y When the Decoder outputs RGB, this line is the Red output When the Decoder outputs YUV,this line is the V output
106	C/B/U (DAC C)	O	When the Decoder outputs the composite video,this line is C When the Decoder outputs RGB,this line is the Blue output When the Decoder outputs YUV,this line is the U output
103	CVBS/C (DAC D)	O	When the Decoder outputs any of the types of video,this line can be programmed to output either composite or C.
108	RSET	I	Resistive load for gain adjustment of the DACs
111	VREF	I	Voltage reference for gain adjustment of the DACs
100	COSYNC	3-S	Composite sync output,Active only when RGB analog output is selected. Otherwise, the signal is low.
<b>Digital Audio Interface</b>			
131	AMCLK	3-S	Audio Master Clock input/output.128,192,256 or 384 times the sampling frequency (programmable)
133	S/PDIF (AOUT[3])	O	S/PDIF transmitter output for digital coded or reconstructed audio data. Alternately can be used as a fourth audio output. After RESET this pin outputs low level.
138,137 136	AOUT[2],[1] AOUT[0]	O	Serial outputs of digital stereo audio.

## U16 ZR36732PQC PINS DESCRIPTION - CONTINUED

Pin No.	Pin Name	Type	Description
113	AIN	I	Serial input of digital stereo audio.
139	ALRCLK	O	Digital audio left/right select output for the audio port. Square wave,at the sampling frequency.Programmable polarity interpretation for input.
141	ABCLK	O	Digital audio bit-clock output. Data on AOUT and AIN is output or latched, respectively, with the rising or falling (programmable)edge of this clock.
<b>PLL/Clock Interface</b>			
120	GCLK	I	27.000MHz clock or crystal input for main processing clock generation.
117	GCLK1	I	27.000MHz clock input for audio master clock generation.in normal operation must be connected to GCLK.
119	XO	O	Output to a crystal that is connected to GCLK. If a crystal is not used at GCLK, XO must be left not connected.
115 118	PLLCFG[1] PLLCFG[0]	I	PLL configuration inputs. Allowed to be changed only during RESET. In normal operation both pins must be connected to GNDP
<b>SDRAM Interface</b>			
90,87 84,81 78,75 72,68 70,74	RAMDAT[15], [14],[13],[12] RAMDAT[11] [10],[9],[8] RAMDAT[7],[6]	3-S	SDRAM bidirectional data bus.
76,79 82,85 88,91	RAMDAT[5],[4] RAMDAT[3],[2] RAMDAT[1],[0]		
55,53 54,51 48,46 43,41 42,45 47,50	RAMADD[11] [10],[9],[8] RAMADD[7],[6] RAMADD[5],[4] RAMADD[3],[2] RAMADD[1],[0]	O	SDRAM address bus output.
60	RAMRAS#	O	SDRAM row select output.
61	RAMCAS#	O	SDRAM column select output.
66	PCLK	O	SDRAM clock output (Same as internal processing clock)
64	RAMDQM	O	SDRAM data masking output.
57	RAMCS0#	O	SDRAM chip select output for the lower (or only) 2MB device (16Mbit)
59	RAMCS1#	O	SDRAM chip select output for the upper 2MB device (16Mbit).
62	RAMWE#	O	SDRAM write enable output.
<b>Test Signal Interface</b>			
125	SCENBL	I	Production test pin (connected directly to GNDP in normal operation).
129	TESTMODE	I	In normal operation this pin must be connected directly to GNDP.
112	ICEMODE#	I	In normal operation this pin must be connected directly to VDDP.If it is asserted, then the ADP goes into ICE mode. In this mode 4 of the Decoder pins turn into ICE interface pins: HD[11] = TCK - ICE interface clock HD[10] = TMS -ICE interface mode select input HD[9] = TDO -ICE interface data output HD[8] = TDI - ICE interface data input
<b>Power Signals</b>			
10,40,49 56,64,69 80,86,97 128,146	GNDP		Digital ground of 3.3 V supply.
3,16,19,26 38,44,52,58 67,71,77,83 89,94,98,99 126,135,140	V <sub>DDP</sub>		3.3V Digital power supply.

### U16 ZR36732PQC PINS DESCRIPTION - CONTINUED

Pin No.	Pin Name	Type	Description
132	GNDP-A2		Digital ground of filtered 3.3V supply for AMCLK.
130	VDDP-A2		3.3 V filtered digital power supply for AMCLK.
14,35,73 114,144	GNDC		Digital ground of 1.8 V supply.
12,33,63 116,142	VDDC		1.8 V Digital power supply
123	GNDA		Ground plane of infernal PLL circuit.
121	VDDA		1.8 V Power supply for internal PLL circuit.
104	VDDDAC		3.3 V Analog power supply for the DACs.
101 107 109 110	GNDDAC_D GNDDAC_B GNDDAC_P GNDDAC_S		Grounds for the DACs 3.3V analog power supply

### U1 5703T (SP3721A) PINS DESCRIPTION

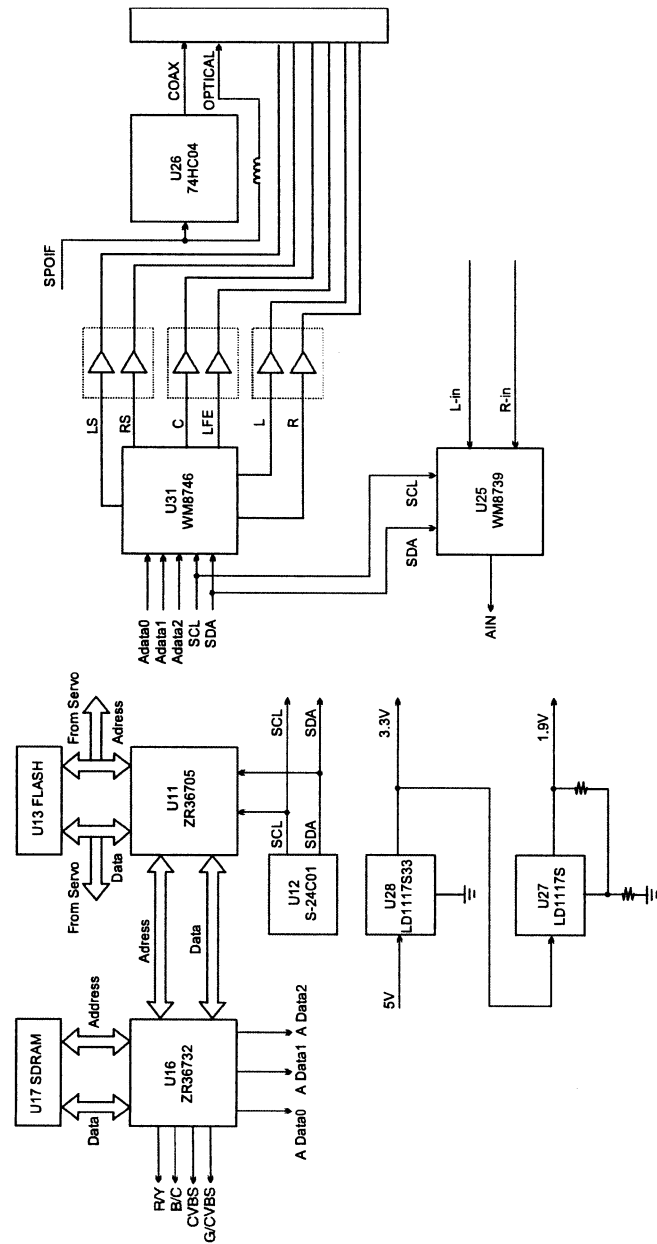
Pin No.	Pin Name	Type	Description
<b>Input Pins:</b>			
1,2	DVDRFP DVDRFN	I	RF Signal Inputs. Differential RF signal attenuator input pin.
63	CDRF	I	RF Signal input. Single-ended RF signal attenuator input pin
59,60	AIP,AIN	I	AGC Amplifier Inputs. Differential AGC amplifier input pins.
53,54	DIP,DIN	I	Analog inputs for RF single Buffer. Differential analog inputs to the RF single-ended output buffer and full wave rectifier.
32	FDCHG#	I	Low Impedance Enable. A TTL compatible input pin that activates the FDCHG switches. A low level activates the switches and the falling edge of the internal FDCHG triggers the fast decay for the MIRR bottom hold circuit.(open high)
49	HOLD1	I	Hold Control. A TTL compatible control pin which, when pulled high, disables the RF AGC charge pump and holds the RF AGC amplifier gain at its present value.(open high)
14-11	A,B,C,D	I	Photo Detector Interface Inputs. Inputs from the main beam photo detector matrix outputs.
8-5	A2,B2,C2,D2	I	photo Detector Interface Inputs. AC coupled inputs for the DPD from the main beam photo detector matrix outputs.
16-15	E,F	I	CD tracking Error Inputs. Inputs from the CD photo detector error outputs.
3-4	PD1,PD2	I	CD photodetector interface inputs. From the CD photo detector error outputs.
40	MEI	I	Mirror Envelope Input.The SIGO envelope input pin.
35	MIN	I	RF signal input for Mirror.AC coupled inputs for the mirror detection circuit from,the pull-in signal output.(Pi)
21	DVDPD	I	APC Input. DVD APC input pin from the monitor photo diode.
23	CDPD	I	APC Input. CD APC input pin from the monitor photo diode.
25	LDON#	I	APC Output On/Off. APC output control pin. A low level activates the LD output. (open high)
<b>Output Pins:</b>			
62,61	ATOP/ATON	O	Differential Attenuator Output.Attenuator outputs.
52,51	FNP,FNN	O	Differential Normal Output.Filter normal outputs.
57	SIGO	O	Single Ended Normal Output.Single-ended RF output.
64	CDRFDC	O	CD RF Signal Output.Single ended CD RF summing output.
42	FE	O	Focusing Error Signal Output. Focus error output-reference to VCI.
41	TE	O	Tracking Error Signal Output. Tracking error output reference to VCI.
43	CE	O	Center Error Signal Output. Center error output reference to VCI.
34	MEVO	O	SIGO Bottom Envelope Output.Bottom envelope for Mirror detection.

### U1 5703T (SP3721A) PINS DESCRIPTION - CONTINUED

Pin No.	Pin Name	Type	Description
37	DFT	O	Defect Output. Pseudo CMOS output.When a defect is detected,the DFT output goes high.Also the servo AGC output can be monitored at this pin,when CAR bits 7-4 are '0011'.
29	MIRR	O	Mirror Detect Output. Mirror Detect comparator output. Pseudo CMOS output.
36	PI	O	Pull-in Signal Output.The summing signal output of A,B,C,D or PD1,PD2 for mirror detection. Reference to VCI.
22	DVDLD	O	APC output DVD APC output pin to control the laser power.
24	CDLD	O	APC output CD APC output pin to control the laser power.
<b>Analog pins:</b>			
56	BYP	I/O	The RF AGC integration capacitor CBYP,is connected between BYP and VPA.
9	CP	I/O	Differential Phase tracking LPF pin. An external capacitance is connected between this pin and the CN pin.
10	CN	I/O	Differential Phase tracking LPF pin. An external capacitance is connected between this pin and the CP pin.
45	LCP	-	Center Error LPF Pin.An external capacitance is connected between this pin and the LCN pin.
44	LCN	-	Center Error LPF Pin.An external capacitance is connected between this pin and the LCP pin.
30	MP	-	MIRR signal Peak hold pin. An external capacitance is connected to between this pin and VPB.
31	MB	-	MIRR signal Bottom hold pin. An external capacitance is connected to between this pin and VPB.
39	MEV	-	Sigo Bottom Envelope pin. An external capacitance is connected between this pin and VPB.
17	CDTE	-	CD Tracking. E-F Opamp output for feedback.
38	TPH	-	PI Top Hold pin. An external capacitance is connected between this pin and VPB.
26	VC	-	Reference Voltage output. This pin provides the internal DC bias reference voltage (+2.5V fix). Output impedance is less than 50ohms.
27	VC1	-	Reference Voltage input. DC bias voltage input for the servo input reference.
18	VC12	-	Reference Voltage Input. DC bias voltage input for the servo input reference.
55	RX	-	reference Resistor Input. An external 8.2kohm,1% resistor is connected from this pin to ground to establish a precise PTAT (proportional to absolute temperature) reference current for the filter.
33	MLPF	-	MIRR signal LPF pin An external capacitance is connected between this pin and VPB.
19	NC	-	No Connect.
<b>Serial Port Pins:</b>			
48	SDEN	I	Serial Data Enable. Serial Enable CMOS input.A high level input enables the serial port.(not to be left open)
47	SDATA	I/O	Serial Data.Serial data bi-directional CMOS Pin. NRZ programming data for the internal registers is applied to this input.(Not to be left open).
46	SCLK	I	Serial Clock Serial Clock CMOS input. The clock applied to this pin is synchronized with the data applied to DSATA.(Not to be left open)
<b>Power Pins:</b>			
58	VPA		Power. Power supply pin for the RF block and serial port.
28	VPB		Power. Power supply pin for the servo block.
50	VNA		Ground. Ground pin for the RF block and serial port.
20	VNB		Ground. Ground pin for the servo block.

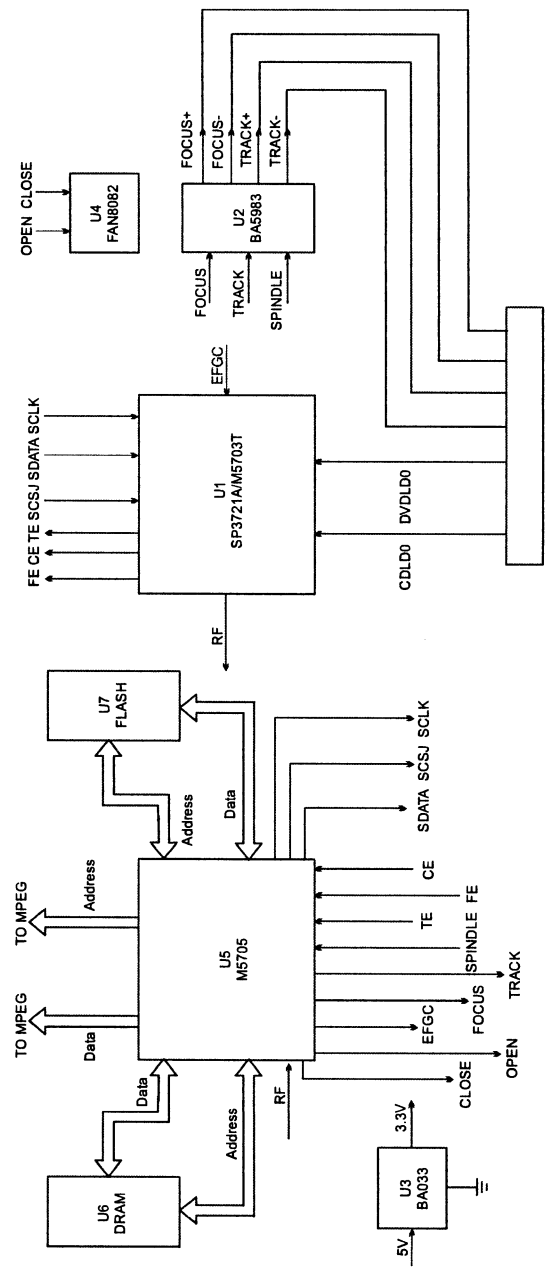


MPEG SECTION

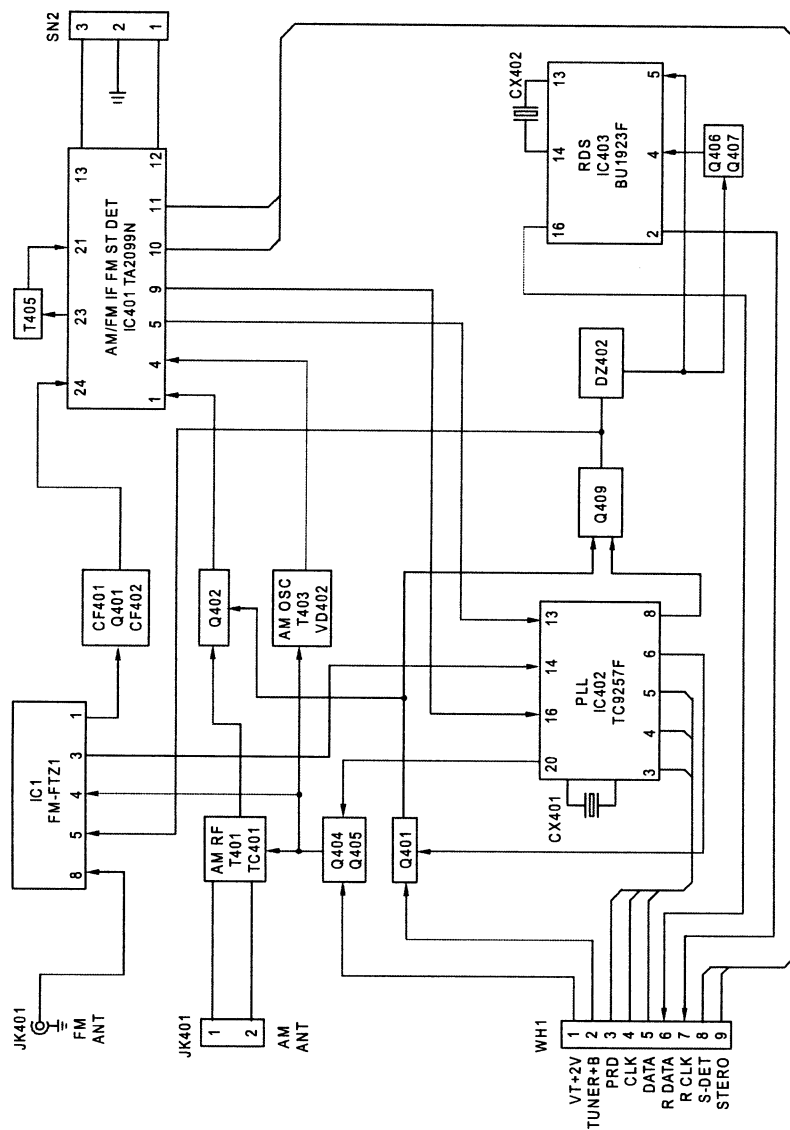


BLOCK DIAGRAMS

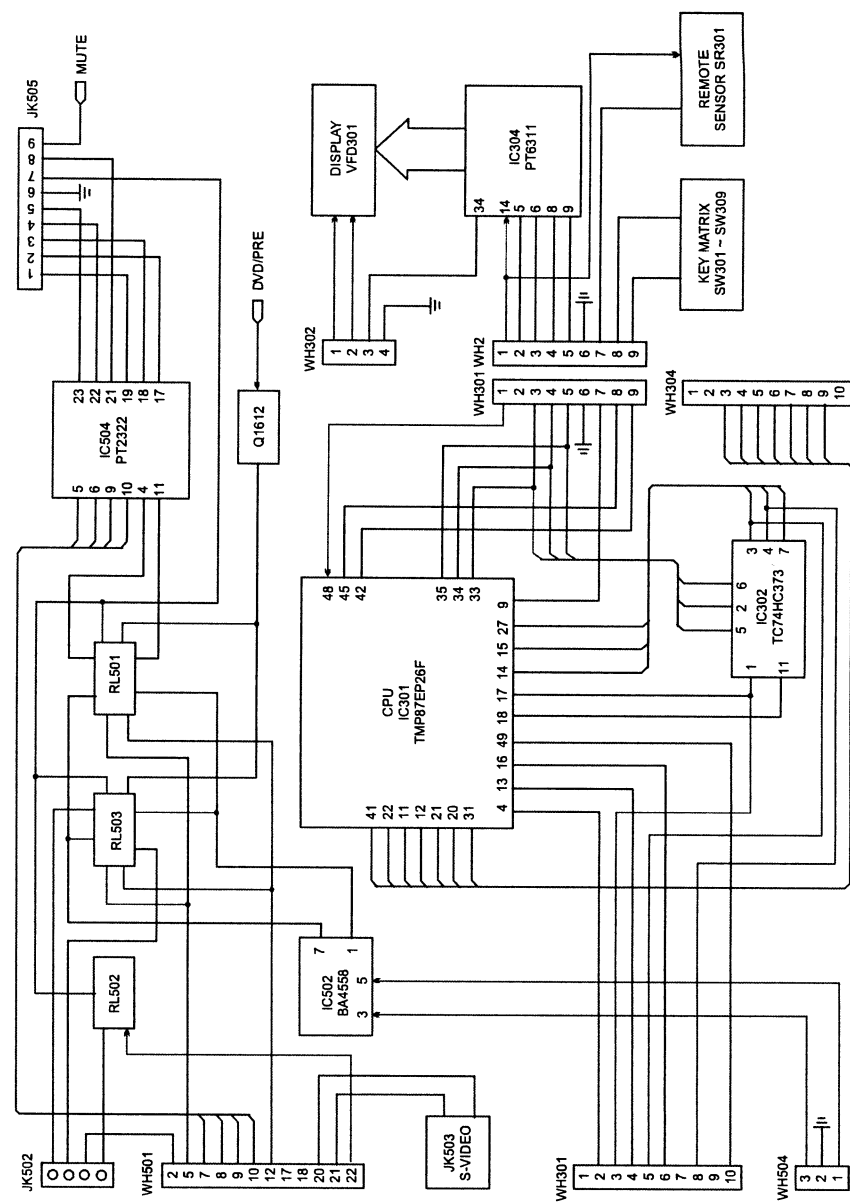
SERVO SECTION



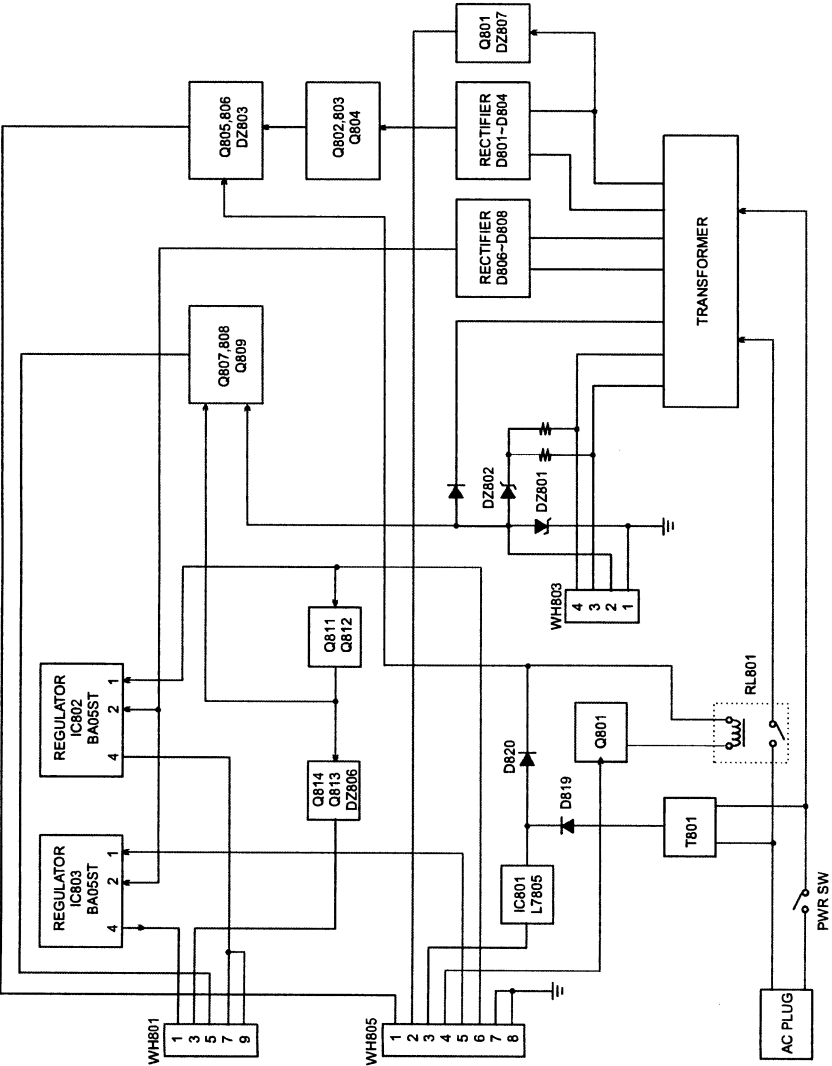
## TUNER SECTION



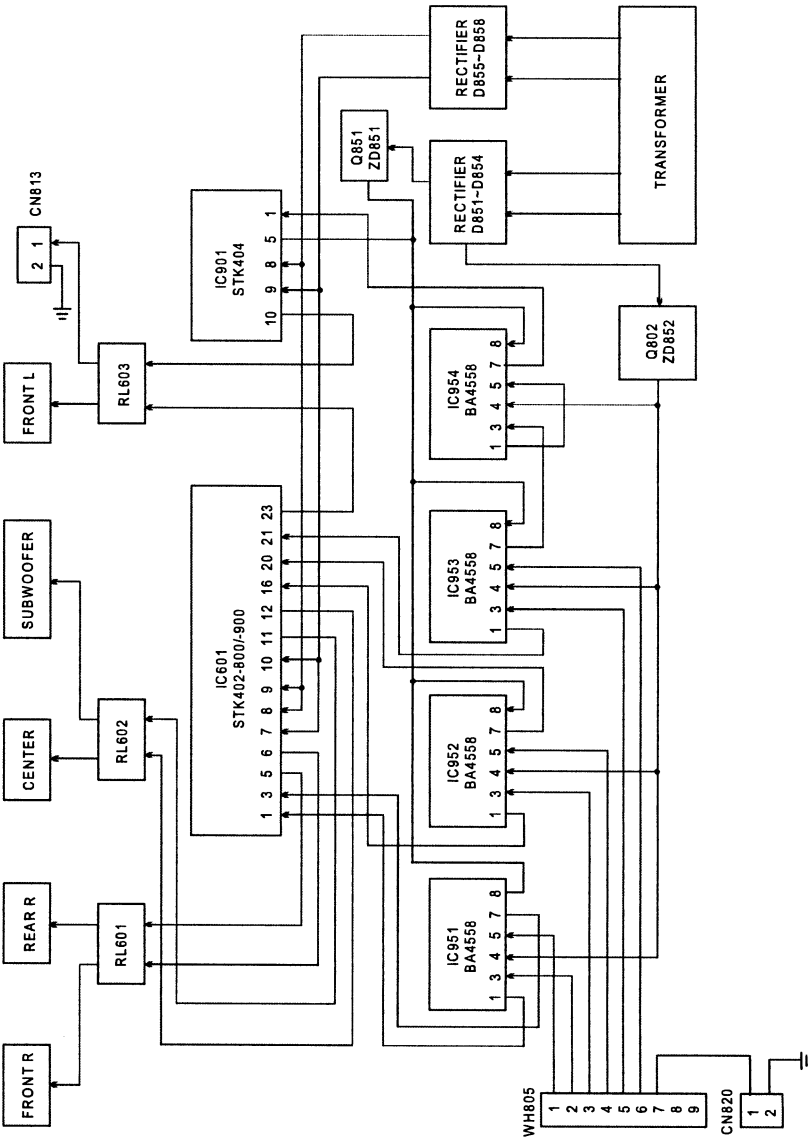
### CPU & CONTROL SECTION



POWER SUPPLY SECTION



POWER AMPLIFIER SECTION FOR SUB-WOOFER



## EXPLODED DRAWING PARTS LIST

Ref. No.	Description	Mfr's Part No.	Qty.
<b>MAIN UNIT</b>			
1	FRONT PANEL, CNS0360 (HIPS,V2) CAV:1, w/PNT (w/RDS)	500-ST6101-xxx	1
2	RUBBER FOOT, 10x10x2.0mm BLACK (NC RUBBER), w/SELF-ADHESIVE	700-630141-000	4
3	HALF MIRROR LEFT TRIM, MIRROR LENS, w/PNT	512-ST6119-xxx	1
4	HALF MIRROR DVD DOOR, MIRROR LENS, w/PNT	512-ST6118-xxx	1
5	HALF MIRROR RIGHT TRIM, MIRROR LENS, w/PNT	512-ST6120-xxx	1
6	REMOTE LENS, MOLD TRANS.GREY(J-52858) CAV:4	500-ST6108-000	1
7	VOLUME LIGHT GUIDE, MOLD TRANS.GREEN(80355) CAV:4	509-ST6110-000	1
8	CONTROL KNOB SET, MOLD CNS0360 (ABS) CAV:2, w/SPY, w/o PNT	510-ST6115-xxx	1
9	FRONT PANEL BRACKET, 1.2mm E.G. STEEL	605-DV3235-000	1
10	POWER PCB BRACKET (A), CAV.9 (ABS)	505-ST6111-000	9
11	MPEG PCB BRACKET (B), CAV.2 (ABS)	505-ST6112-000	2
12	LED HOLDER, CAV.1 (ABS)	505-ST6107-000	1
13	VOLUME KNOB (-), MOLD GREY(CNS-0360) (ABS) CAV:2, w/SPY	510-ST6141-xxx	1
14	VOLUME KNOB (+), MOLD GREY(CNS-0360) (ABS) CAV:2, w/SPY	510-ST6104-xxx	1
15	VFD-2COL100x20.5SM-033P, VFD301	115-001002-000	1
	VACUUM FLUORESCENT DISPLAY #VFD20-1002 (ZEC)		
16	REMOTE SENSOR HOLDER, CAV.1 (ABS)	505-ST6109-000	1
17	DISPLAY & KEY PCB STS61AAS-01-02	033-ST61A-101	1
18	MPEG+SERVO PCB STS21AAS-01-02	033-ST21A-101	1
19	TUNNING PCB BRACKET, CAV.1 (ABS)	505-ST6113-000	1
20	HEATSINK, 0.5mm TIN PLATE	2/MPEG IC 613-DV3231-000	2
21	RGB CONNECTOR SOCKET 21 PINS, HRC-021V-07, (KUNMING)/MRC-021V-04 (HONDA)	JK701 135-HRC021-210	1
22	SCART PCB STS21AAS-01-05	033-ST21A-104	1
23	TUNER PCB STS21AAS-01-04	033-ST21A-103	1
24	OUTPUT PCB STS61AAS-01-03	033-ST61A-102	1
25	DVD DOOR BRACKET, MOLD BLACK (ABS) CAV:2	505-ST6117-000	1
26	SOCKET HOLDER, CAV.8 (ABS)	505-ST6136-000	1
27	DVD MECHANISM w/SAMSUNG CMS-S11MG6	STSD-010SMT	1
28	TOP COVER, T=0.6mm E.G.STEEL, w/SPY w/HOLE (SAME AS DV32-13)	600-ST6143-xxx	1
29	HS&-EXT-AL&-005W-0C FIRM VOLTAGE HEATSINK, (EXTRUDE AL)	1/POWER PCB 613-ST2112-000	1
30	RECTIFIER PCB STS61AAS-01-04	033-ST61A-103	1
31	POWER TRANSFORMER	123-xxxxxx-xxx	1
32	PUSH SWITCH 2P2T PS3-22SP-W4CW-3.2, w/UL.VDE SEMKO APPROVAL (LUP FUNG)	021-032222-000	1
33	POWER KNOB, MOLD GREY(CNS-0360) (ABS) CAV:2, w/SPY	510-ST6106-xxx	1
34	BACK PLATE, 179x52.5mm, w/PNT	650-ST6126-xxx	1
35	POWER TRANSFORMER	123-xxxxxx-xxx	1
36	BOTTOM CABINET, T=0.8mm (E.G.STEEL)	600-ST6114-000	1
37	TF STEEL PLATE, 0.35mm SI STEEL (Z11)	650-ST6146-000	1
	HANDLE, MOLD BLACK (P.P) CAV:4, w/RECYCLE MARK ENGRAVE	FOR CARTON 504-ST6145-000	2
	AUDIO OUT PLATE, S:35x31mm, R.1mm, BLK PVC, w/PNT	650-ST6123-xxx	1
	SCREW 3x6mm BB T.T.S. (S TYPE) NI PLATED (TSB#9878107200)	722-080308-060	9
	SCREW ST3x8mm, PB BRASS BASED	8/ELE PARTS TO B CAB 720-050300-080	9
	FIBRE WASHER Ø12.0xØ3.0x1.0mm	1/TUN PCB TO TUN PCB BKT 532-303012-100	2
	SPRING WASHER 3mm Zn	4/TX 532-403000-000	4

## EXPLODED DRAWING PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
	TF PVC PLATE, 0.5mm PVC	650-ST6137-000	1
	FELT PAPER, BLACK, 75x6.5x0.8mm w/ADHESIVE	1/FRONT PANEL 700-3D5256-000	1
	*CdF SPK. BOX FELT 80x8x0.3mm, BLACK, (TSB#PM0005432010)	1/SET 700-993856-000	1
	REMOTE SENSOR INVISIBLE FELT	1/SET 700-SD1614-000	1
	FELT B, 50x15x0.3mm HIMERON, w/SONY T-3500, 2-SIDED TAPE(T#9871858900)	4/SET 700-SDC019-001	4
	SCREW ST3x10mm, PB BRASS BASED	1/TUNING PCB BKT 720-050300-100	1
	SCREW 3x8mm, PM BRASS BASED	4/TX 721-010300-080	4
	SCREW ST3x8mm BB T.T.S. (B TYPE), CBTS(P)-Z CHROMATE PLATING CBTB 3x8 MC)	4/IC TO HEAT SINK 722-080307-082	6
	(F722-080308-182) SCREW 3x18mm BB T.T.S. (S TYPE)	2/PCB TO HEAT SINK 722-080308-180	2
	SCREW 3x14mm PM TTS w/NICKEL-PLATED	2/PCB BKT TO B. CAB. 722-110300-142	10
		9/PCB BKT TO B CAB 1/BKT TO BTM	
	SCREW 3x20mm PM T.T.S. (STP 3x20 NI)	4/MECHANICAL 722-110300-200	4
	*CdF NUT M3x0.5 PITCH NI	4/TX 725-000030-500	4
	SPONGE, SIZE:15mmx15mmx10mm	700-0228A3-000	3
	*CdF 4" CABLE/PLASTIC TIE (SKB-1M/CV-100)	727-000100-000	3
	PVC TUBE AWG1 INNER DIA. 7.35mm DC-3, (DAE CHANG) (UL/CSA APP.) TRANSPARENT	UNIT"M 728-000073-000	0.07
	*CdF PVC HEAT SHRINKABLE TUBE DIA.3.5mm, (UNITUBE) (UL/CSA APP)	UNIT"M 728-015035-000	0.04
	SENSOR SHIELDING PLATE, COPPER FOIL (SELF ADHESIVE)	650-ST6140-000	1
	PCB SHIELD FIBRE PAPER	700-ST6122-000	1
	DIFFUSING PAPER (PAPER D207)	700-ST6139-000	1
	SCREW ST2.6x10mm, PB BRASS BASED	5/PCB F.PANEL 720-050260-100	5
	SCREW ST2x6mm, BB BRASS BASED	1/LIGHT GUIDE TO F.PANEL 720-110200-060	1
	SCREW ST3x12mm, BB HEAD V5.9-6.3, BB BRASS BASED (P TYPE)	2/F.PANEL BKT-F.PANEL 720-110300-120	2
	*CdF FUSE HOLDER, HTF-015	550-790000-000	4
<b>DVD MECHANISM - STSD-010SMT</b>			
1	DRIVE GEAR, MOLDED BLACK, CAV.2, POM M90 94HB	509-CD3205-000	1
2	LM BELT, MOLD BLK, DIA:28x1.85x1.85 LOY-BELT-CR	700-0CDD40-002	1
	MOTOR BELT (RUBBER)		
3	PULLEY GEAR, MOLDED BLACK, CAV.4, POM M90 94HB	509-CD3206-000	1
4	CHUCK YOKE, MOLDED BLACK, CAV.2 (ABS)	509-DVD302-000	1
5	SLIDER, MOLDED BLACK, CAV.2 (ABS)	509-CD3204-000	1
6	CHASSIS,MOLDED BLACK, CAV.1 (HIPS)	509-CD3202-000	1
7	LEAF SWITCH LS-121-0A (LUP FUNG)	022-001210-001	1
8	TRAY, MOLDED BLACK, CAV.1 (ABS)	509-CD3201-000	1
9	(F700-0CDD18-000) MOTOR PULLEY, MOLDED BLACK, POM M90 94HB, CAV:6 (POM)	509-0CDD18-000	1
10	MOTOR-DC-006V-NORMAL 6V #RF-500TB-12560, (MABUCHI) 10gm (KSM-2101-ABM-AL)	151-061256-000	1
11	LOAD MOTOR PCB STS21AAS-01-09	033-ST21A-108	1
12	SPRING PLATE, 0.2T S.S.	650-CDD307-000	1
13	CHUCK PLATE, DIA:19.9/DIA:3.5x0.8 ELECTROLYTIC ST. PLATE	650-DVD303-000	1
14	CD MECHANISM HOLDER, MOLDED NATURAL, CAV.2 (ABS)	505-CD3203-000	1
15	CHUCK PULLEY, MOLDED BLACK, CAV.2 (ABS)	509-DVD301-000	1
16	FFC CABLE HOLDER, MOLDED BLACK, CAV.4 (ABS)	505-CD3210-000	1
17	DVD-FLC-01-SAMG-N DVD MECHANISM FOR CD-R CMS-S21MG6 (SAMSUNG)	163-000216-000	1



## EXPLODED DRAWING PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
18	DVD CUSHION, CR HARDNESS 50+-2 DURO BLACK	700-DVD304-000	4
19	METAL BRACKET, 1.0 THK E.G.STEEL	605-CD3211-000	1
20	METAL BRACKET, 1.0 THK E.G.STEEL	605-CD3211-000	1
	SCREW ST2.6x10mm, BB BRASS BASED (P TYPE)	720-110260-100	2
	METAL WASHER DIA:2.8/DIA:9.5x0.5mm	532-202809-550	1
	PLANE WASHER DIA:2.8x0.5mm	532-202807-050	2
	METAL WASHER DIA:2.8/DIA:9.5x0.5mm	532-202809-550	4
	PVC WASHER Ø10xØ6.05x0.1mm, K890-43	532-510006-010	1
	FOAM RUBBER, 6x5x4.5mm (HARDNESS 60 PAD CORD)	700-0CDD48-001	1
	SHIELD CORE (MABUCHI 53-192AB)	700-0CDD50-000	1
	HEATSINK SPACER, 50x6x2mm,	700-D15669-000	1.4
	INOAC RUBBER SPONGE C-4305 (BLK) w/TAPE		
	SCREW ST2x5mm PB BRASS BASED (M2.3 HEAD)	720-050200-050	2
	SCREW 2.6x5mm PM w/CHROMATE-PLATING	721-010260-052	2
	SCREW 2.6x10mm BB T.T.S. (P TYPE) CHROMATE PLATING, (BTTB2.6x10MC)	722-080260-102	6
	*CdF 4" CABLE/PLASTIC TIE (SKB-1M/CV-100)	727-000100-000	1
<b>CENTER SPEAKER PORTION - SSQC3</b>			
1	SPEAKER CLOTH #FP-662-0WT (SILVER GREY) (230mmX160mm)X1PC/SET WIDTH:60"-62"	662-0FP662-000	0.0252
2	SPEAKER CLOTH MESH, CAV.2 (HIPS)	509-SQC303-000	1
3	SPEAKER PANEL, MOLD CNS-0360 (HIPS), w/SPY	500-SQC301-xxx	1
4	SPK00003*008OHM0050W w/BK DOME PAPER CAP #L77SZ4307G55C8AS19PDB (GGEC) (L0234)	131-308050-010	1
5	HOLE COVER, MOLD CNS-0360 (HIPS) CAV:8	500-SSQ104-000	2
6	SPEAKER CABINET, MOLD GREY(CNS-0360) (HIPS), w/ENGRAVING	500-SQC102-000	1
7	PUSH TERMINAL BOARD PT-213-03 BLACK, RED, MSP-105H-03 BLACK, RED	118-000213-000	1
	*CdF SPK. BOX FELT 80x8x0.3mm, BLACK, (TSB#PM0005432010)	700-993856-000	2
	SPEAKER GASKET, 1.5 THK FOAM RUBBER	700-SQC204-000	1
	SCREW ST3x20mm, PAB BRASS BASED	720-010300-200	4
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	720-110300-080	2
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED	720-110300-100	4
<b>SUB-WOOFER PORTION - SWT1A</b>			
1	SUB WOOFER PANEL, MOLD CNS0360, (HIPS) w/PNT	500-SWT106-xxx	1
2	LED PCB SWT1-01-06	033-00SWT1-600	1
3	SUB-WOOFER TUBE, MOLD L.GREY (CNS-0360) (HIPS) CAV:4	509-SWT202-000	1
4	SW BOX, 15mm PARTIAL BD, 220x380x285mm, SIL PVC MOKU ME-2907,w/SPY (30W)	660-SWT107-xxx	1
5	SPEAKER POST ADAPTOR, MOLDED NATURAL, CAV.8 (ABS)	503-650127-000	6
6	RUBBER STAND, 22x8mm, BLACK, 7900, K-1S	700-021000-000	4
7	SPK006.5*004OHM0120W w/BK DOME PAPER CAP #SW165RZ5802G100F4AS36PFB (L0257)	131-6540A0-010	1
8	SPEAKER MESH, MOLDED BLACK, CAV.2 (HIPS) REV.1	509-299973-001	1
9	SPEAKER CLOTH #FP-662-0WT (SILVER GREY), WIDTH:60"-62" FOR SUBWOOFER (320x320mm) UNIT"YD"	662-0FP662-000	0.07

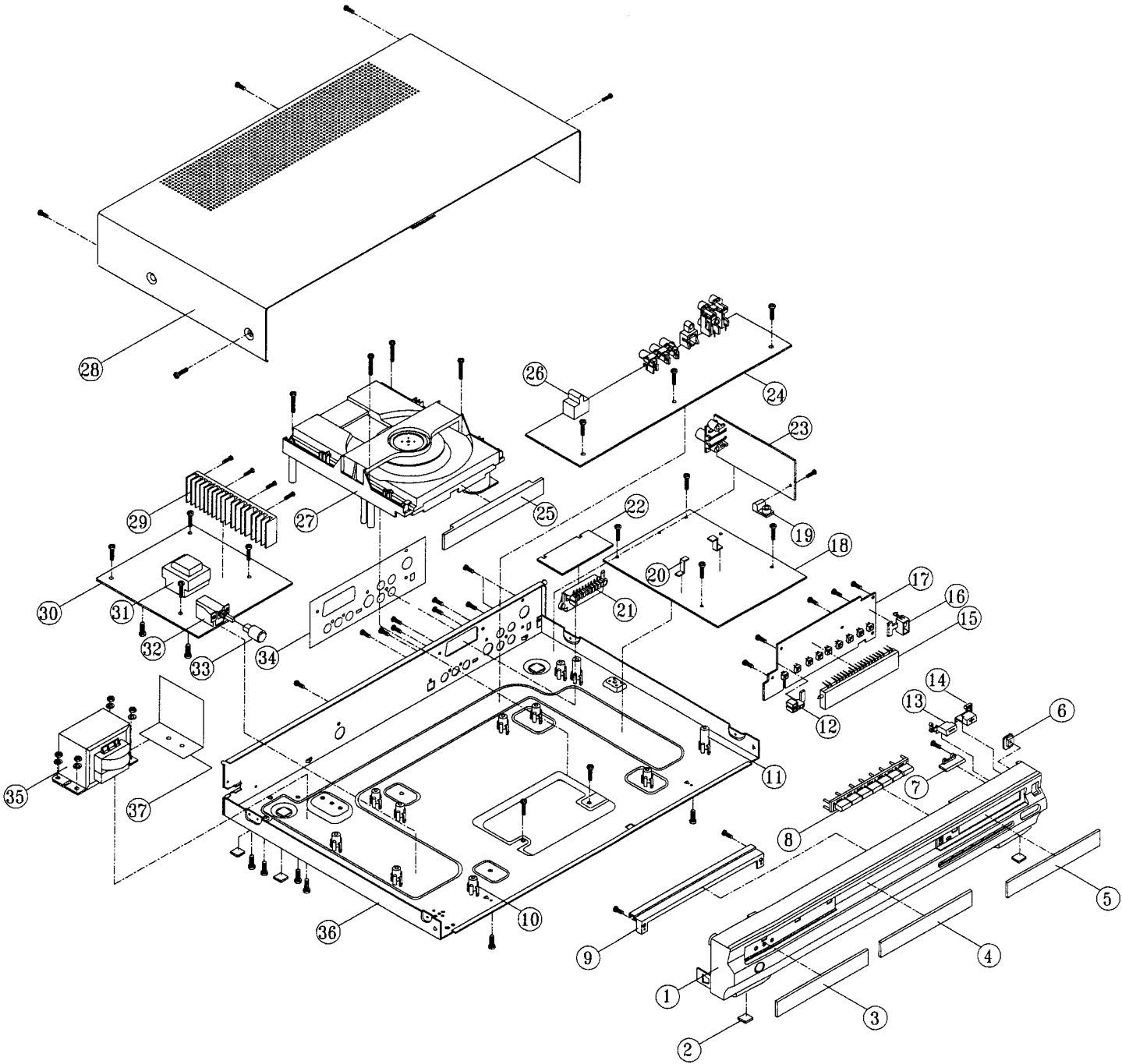
## EXPLODED DRAWING PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
10	AMP.BRACKET, MOLD L.GR(CNS-0360) (HIPS 94V0), CAV:1	505-SWT104-000	1
11	(F550-823843-000) L BRACKET, MOLDED NATURAL (ABS)	505-823843-000	2
12	SUB-WOOFER AMPLIFIER PCB SWT1-01-05	033-00SWT1-600	1
13	(F550-266422-000) MOUNTING BRACKET, MOLDED NATURAL, CAV.8 (ABS)	505-266422-000	2
14	CONNECTION PCB SWT1-01-04	033-00SWT1-600	1
15	POWER TRANSFORMER	123-xxxxxx-xxx	1
16	DISPLAY & KEY PCB SWT1-01-02	033-00SWT1-600	1
17	(F550-630123-000) PCB CONNECTION BRACKET, MOLDED BLACK, CAV.4 (ABS)	505-630123-000	4
18	OUTPUT PCB SWT1-01-03	033-00SWT1-600	1
19	SOCKET HOLDER, CAV.8 (ABS)	505-ST6136-000	1
20	SUB-WOOFER AMPLIFIER PCB SWT1-01-01	033-00SWT1-600	1
21	IC BRACKET, 1.0mm THK E.G.STEEL	605-SWT112-000	1
22	HEAT SINK, EXTRUDE ALUMINIUM	613-SWT111-000	1
23	BACK COVER PLATE, 1.2mm THK E.G. STEEL w/PNT, S:313x194.5mm	650-SWT109-xxx	1
24	HEAT SINK COVER, MOLD L.GREY(CNS-0360) (HIPS) CAV:1	500-SWT108-000	1
25	SHIELDING PCB SWT1-01-07	033-00SWT1-100	1
	METAL WASHER 3.5x10x0.5mm	4/SW BOX 532-203510-050	4
	FIBRE WASHER 3x8x1mm (NF77)	6/HEAT SINK 532-303008-100	6
	*CdF FIBRE WASHER Ø3.5x8x0.4mm (DIA:3x8x0.4mm)	2/AMP PCB 532-303508-040	2
	SPRING WASHER 4mm BLACK	6/TF 532-404000-000	6
	SOUND TUBE GASKET, DIA:68x1.5mm EVA	700-SWT213-000	1
	TUBE CUSHION, 5mm THK RUBBER FOAM, w/DOUBLE SIDE TAPE	1.5/SPEAKER 700-299633-000	1.5
	SCREW ST2.6x8mm, PAB (M3 HEAD) (M3H), BRASS BASED	12/PCB BKT 720-010260-080	12
	SCREW ST2.6x6mm BB BRASS BASED	2/LED PCB 720-110260-060	2
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED	2/L BKT 720-110300-080	4
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED	2/MOUNTING BKT 720-110300-100	27
	WOOD SCREW ST4x20mm PWA CHIT BOARD, W=9.5-10mm YELLOW ZINC	8/AMP BKT-SUB WOOFER BOX 720-180400-202	8
	WOOD SCREW ST3x12mm BA CHIT BOARD	4/RUBBER STAND 720-190300-120	18
		4/SPK-SW BOX	
		6/SPK POST ADAPTOR TO SW BOX	
		4/SUB WOOFER TUBE TO SW BOX	
	SCREW M3x8 PM BLACK ZINC	4/HEAT SINK COVER 721-010300-081	4
	SCREW 4x16mm, PM	6/TRANSFORMER 721-010400-160	6
	SCREW ST3x8mm BB T.T.S. (B TYPE), CBTS(P)-Z CHROMATE PLATING CBTB 3x8 MC)	6/HS-BACK PLATE 722-080307-082	6
	SCREW ST3x16mm BB T.T.S. (B TYPE) CBTS(P)-Z	4/POWER IC 722-080307-160	4
	NUT M4	6/TF 725-000040-000	6
	*CdF 4" CABLE/PLASTIC TIE (SKB-1M/CV-100)	727-000100-000	4
	*CdF PVC TUBE AWG3 INNER DIA:6.0mm, (DAE CHANG/TAE IK) (UL/CSA APP.)	UNIT"M" 728-000060-001	0.16
	PVC TUBE AWG1 INNER DIA. 7.35mm DC-3, (DAE CHANG) (UL/CSA APP.) TRANSPARENT	UNIT"M" 728-000073-000	0.75
	*CdF PVC HEAT SHRINKABLE TUBE DIA.3.5mm, (UNITUBE) (UL/CSA APP)	UNIT"M" 728-015035-000	0.04

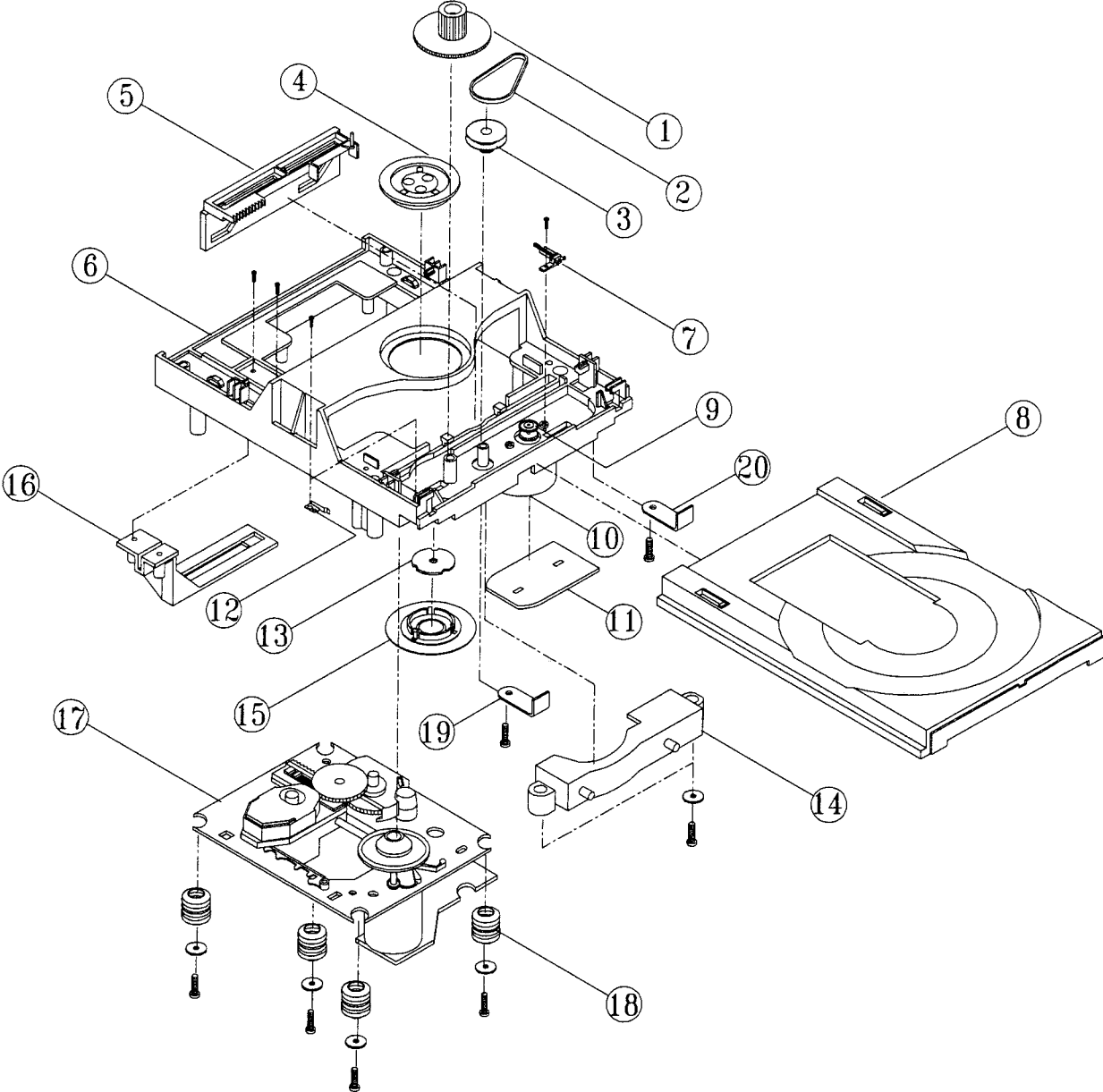
EXPLODED DRAWING PARTS LIST - CONTINUED

Ref. No.	Description	Mfr's Part No.	Qty.
	*CdF FUSE HOLDER, HTF-015	550-790000-000	8
4-SPEAKER PORTION - SSQ3			
1	SPEAKER CLOTH #FP-662-0WT (SILVER GREY) (200mmX160mm)X4PCS/SET WIDTH:60"-62" UNIT"YD"	662-0FP662-000	0.0875
2	SPEAKER CLOTH MESH, CAV.4 (HIPS)	509-SSQ303-000	4
3	SPEAKER PANEL, MOLD CNS-0360 (HIPS), w/SPY	500-SSQ301-xxx	4
4	SPK00003"008OHM0050W w/BK DOME PAPER CAP #LF77SZ4307G55C8AS19PDB (GSEC)(L0234)	131-308050-010	4
5	HOLE COVER, MOLD CNS-0360 (HIPS) CAV:8	500-SSQ104-000	4
6	SPEAKER CABINET, MOLD GREY(CNS-0360) (HIPS), w/ENGRAVING	500-SSQ102-000	4
7	PUSH TERMINAL BOARD PT-213-03 BLACK, RED, MSP-105H-03 BLACK, RED	118-000213-000	4
	FELT B, 50x15x0.3mm HIMERON w/SONY T-3500, 2-SIDED TAPE (T#9871858900) 4/SET	700-SDC019-001	4
	SCREW ST3x35mm, PAB (M3.5 HEAD) BRASS BASED 16/CAB-SPK PANEL	720-010300-350	16
	SCREW ST3x8mm, BB HEAD V5.9-6.3, BB BRASS BASED 8/PUSH TER.BOARD-SPK CAB	720-110300-080	8
	SCREW ST3x10mm BB HEAD V5.9-6.3 BRASS BASED 16/SPK-SPK PANEL	720-110300-100	16

EXPLODED DRAWING - MAIN UNIT

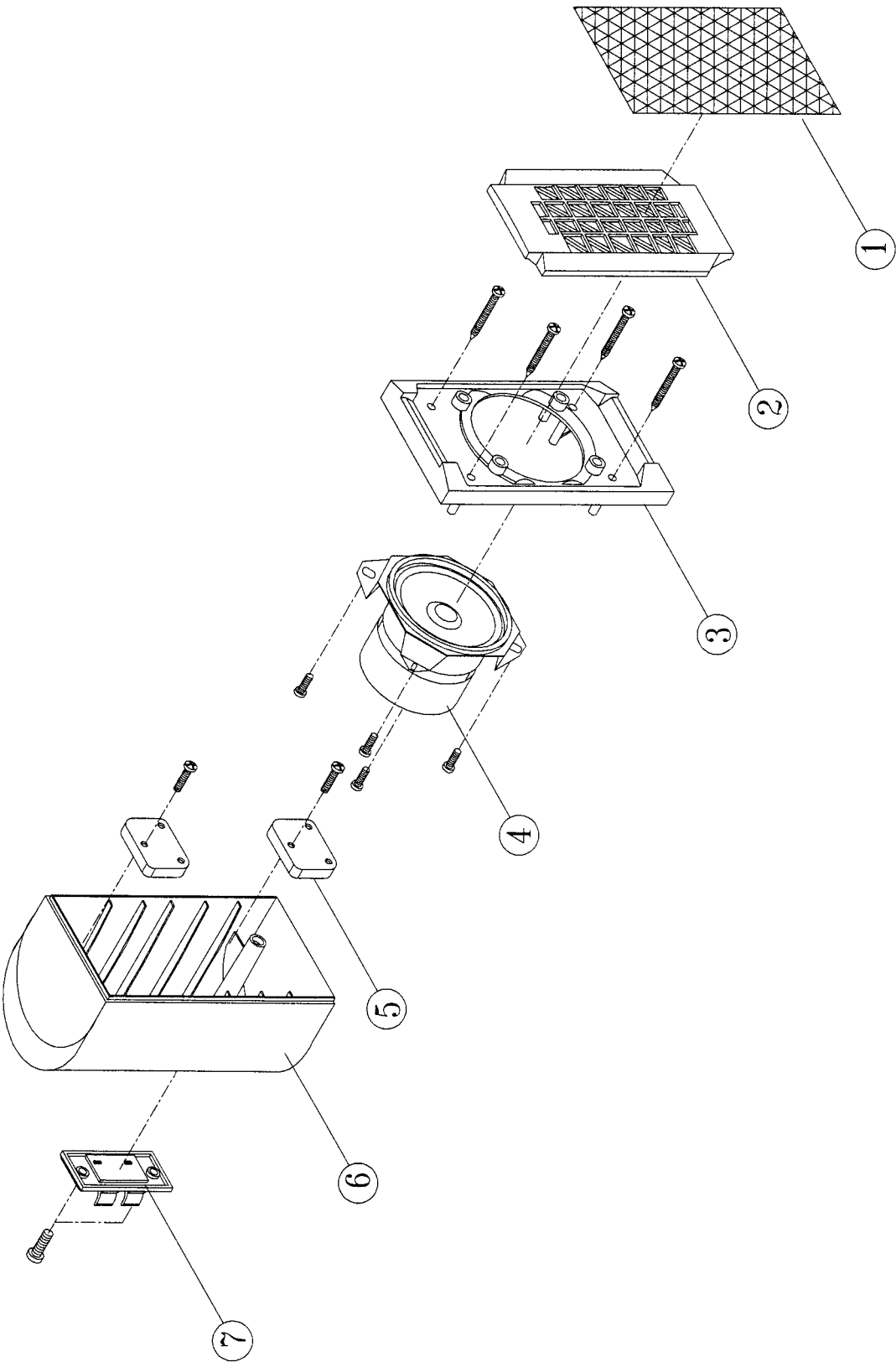


EXPLODED DRAWING - DVD MECHANISM



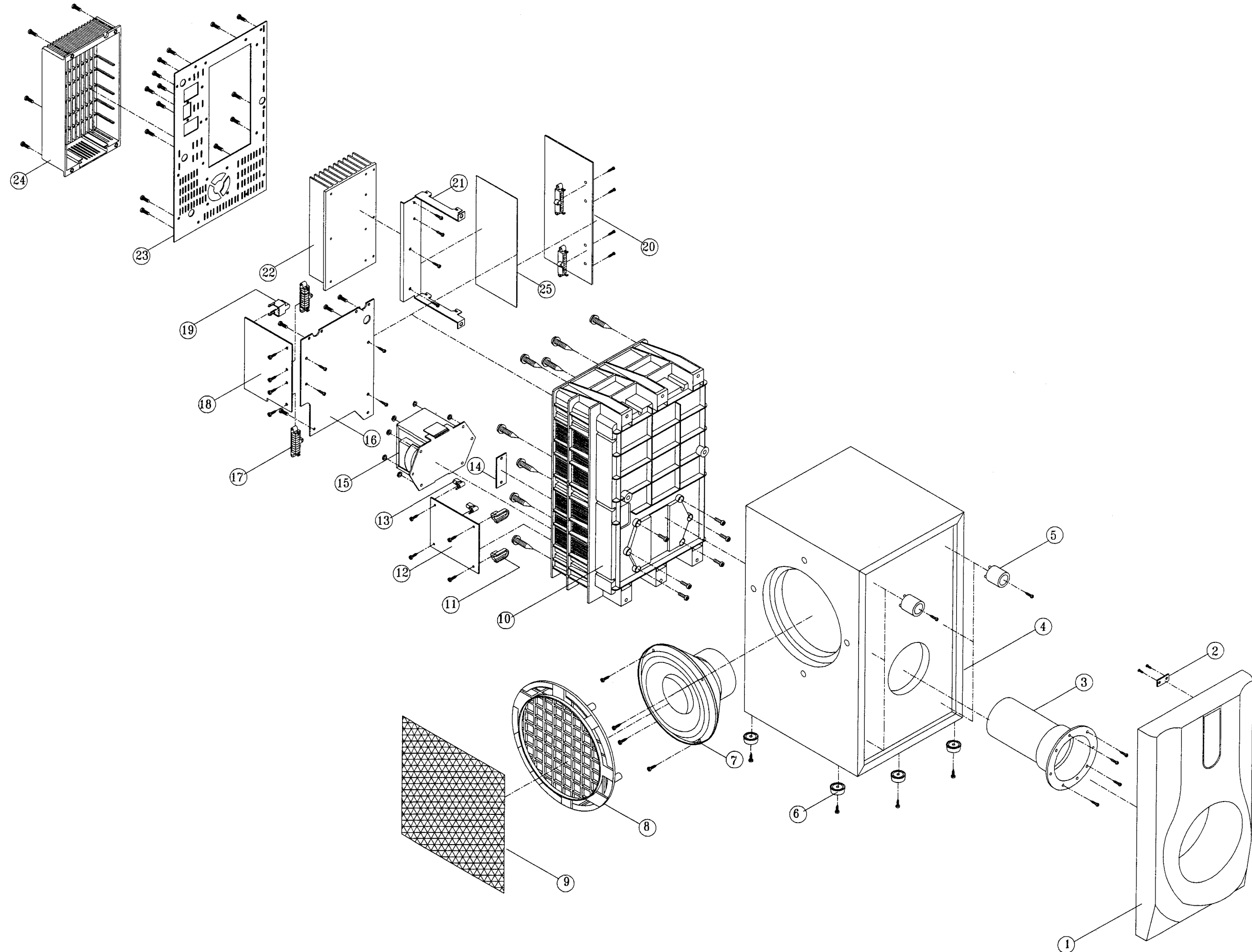
EXPLODED DRAWING - CENTER SPEAKER

(SSQC3)



# EXPLODED DRAWING - SUB-WOOFER

(SWT1A)





(SSQ3)

EXPLODED DRAWING - 4-SPEAKER

